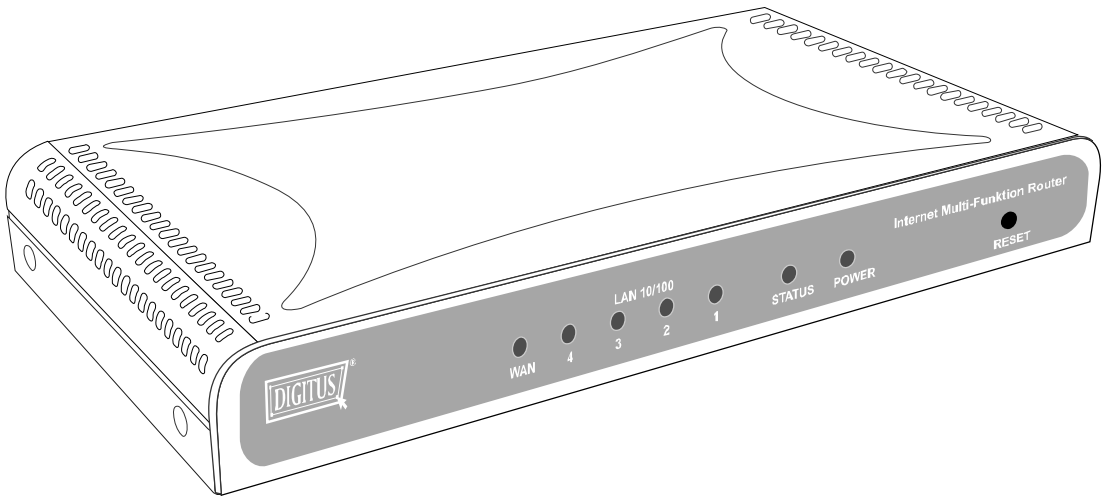
DIGITUS®
NETWORK

User's Manual

INTERNET
MULTIFUNCTION ROUTER

DN-11007-N

Internet USB Multi-Function Router



User's Manual

Copyright Statement

This user's manual, includes the products and software may be reproduced, transcribed, transmitted and stored. That totally depends on the legal authorized copyright. Furthermore, it can be translated into any language in any form or by any means, except some documents or public software without the copy permission of our company.

ACCORDING TO THE AMERICA COPYRIGHT RULES IN 1976, PEOPLE CANNOT PUBLISH ANY UNAUTHORIZED CREATION IN ANY FORM OR BY ANY MEANS. IN DETAIL, WHOLE CREATION, EVEN PART OF CREATION CANNOT BE PUBLISHTED VIA THE MENTIONED METHODS BY OTHERS. FOR INSTANCE, DOCUMENTATION OF TRANSLATION OR MODIFICATION IS PROHIBITED.

Copyright © 2004 All Rights Reserved.

Warranty

One-Year Warranty is provided for consumer products. This warranty is subject to the conditions and limitations set forth herein.

("We") warrants and tests the Product to be free from defects in material and workmanship and to conform to published specifications. During the warranty period, should the Product fail under normal use in the recommended environment due to improper workmanship or materials, We will repair the Product or replace it with a comparable one.

This warranty is for a specific period of time from the date of purchase. Proof of date of purchase is required. We will inspect the Product and make the decision regarding repair or replacement. We reserve the right to provide a functionally equivalent refurbished replacement Product.

This warranty does not apply to Product failure due to accident, abuse, mishandling, improper installation, alteration, improper usage, or problems with electrical power. The Product must be used with devices that conform to the recommended industry standards. We will not be liable for damages resulting from a third party device that causes the Product to fail. We shall in no event be liable for any consequential, indirect, or incidental damages, lost profits, lost business investments lost goodwill, or interference with business relationships as a result of lost data. We are also not responsible for damage or failure of any third party equipment, even if we have been advised of the possibility. This limitation does not apply to the extent that it is illegal or unenforceable under applicable law.

The limited warranty is exclusive, with no other warranties, implied or statutory, including, but not limited to any implied warranty of merchantability or fitness for a particular purpose. The technical supports or advices we provided do not affect this warranty in any part.

Safety Statements

This device complies with FCC Rules Part 15. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and has to comply with Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this device causes harmful interference to home electric equipment, which can be determined by turning the equipment off and on, users are reminded of correcting the interference by the part of the following instruction:

- Change to connect another outlet.
- Adjust or replace the receiving antenna.
- Keep a distance between interference maker and receiver.
- Contact with your product supplier for help.

CE Statement of Conformity

Our product has been tested in typical configuration by Ecam Sertech Corp and was found to comply with the essential requirement of “Council Directive on the Approximation of the Laws of the Member States relating to Electromagnatic Compatibility” (89/336/EEC; 92/31/EEC; 93/68/EEC)

Index

Chapter 1: Introduction & Installation 8

1.1 Overview 8
1.1.1 The installation of WAN with XDSL Modem 8
1.1.2 The installation of WAN with Cable Modem 8
1.1.3 The installation of LAN with computers 9
1.2 Features 9
1.2.1 Webcam Monitor 9
1.2.2 Print Server 9
1.2.3 FTP Server 9
1.2.4 IP Sharing 9
1.3 Specifications 10
1.4 System Requirements 11
1.5 The Product Package 11
1.6 Front Panel LED Indicators 12
1.7 Hardware Connections 13
1.8 Get your IP Automatically & Manually 16

Chapter 2: DN-11007-N Home page 18

2.1 How to link DN-11007-N Home page 18
2.2 How to enter DN-11007-N's setting items 19

Chapter 3: DN-11007-N Settings 20

3.1 Home 20
3.2 Quick Setup 21
3.2.1 ADSL Dialup (PPPoE) 21
3.2.2 ADSL Static IP 22
3.2.3 Automatic IP 23
3.2.4 Cable Modem (DHCP) 24
3.3 IP Config 25
3.3.1 WAN & LAN 25
3.3.2 DHCP Server 30
3.3.3 Routing Table 32
3.3.4 Miscellaneous 34
3.4 NAT Setting 36
3.4.1 Port Trigger 36

3.4.2 Virtual Server *38*
3.4.3 Virtual DMZ *40*
3.5 INTERNET FIREWALL 41
3.5.1 WAN & LAN Filter *41*
3.5.2 MAC Address Filter *43*
3.5.3 URL Filter *45*
3.6 USB APPLICATION 46
3.6.1 FTP Server *46*
3.6.2 Web Camera *49*
3.6.3 Print Server *58*
3.7 SYSTEM SETUP 78
3.7.1 Change User Setting *78*
3.7.2 Router Time Setup *79*
3.7.3 Firmware Upgrade *81*
3.7.4 Setting Management *82*
3.7.5 Factory Default *83*
3.7.6 Wake on LAN *84*
3.8 STATUS & LOG 85
3.8.1 Status *85*
3.8.2 DHCP Leases *88*
3.8.3 System Log *89*
3.9 LOGOUT 90

Chapter 4: DDNS Service 91

Chapter 5: Q & A 94

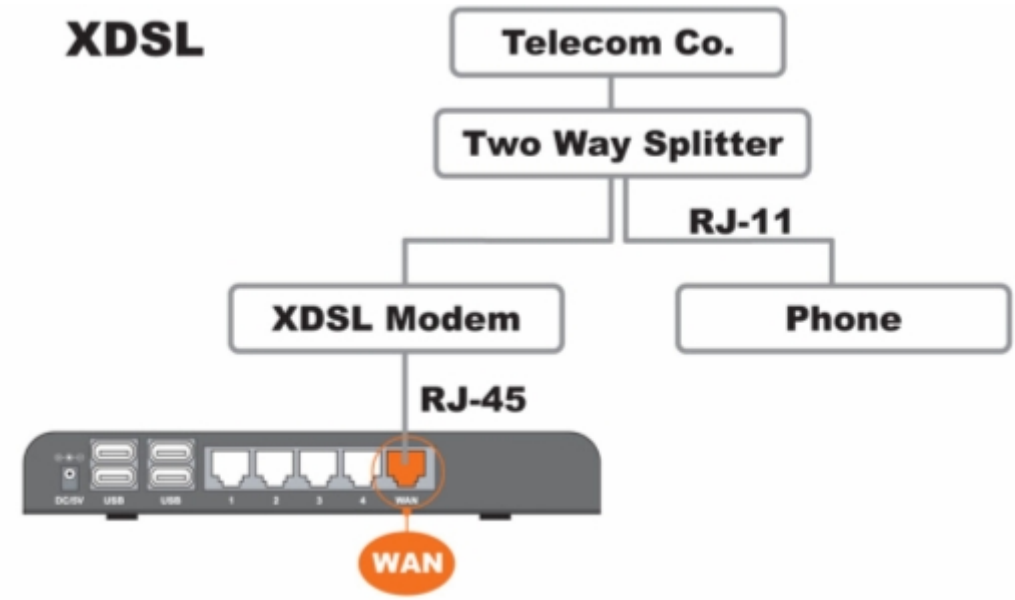
Chapter 6: Glossary 97

Chapter 1: Introduction & Installation

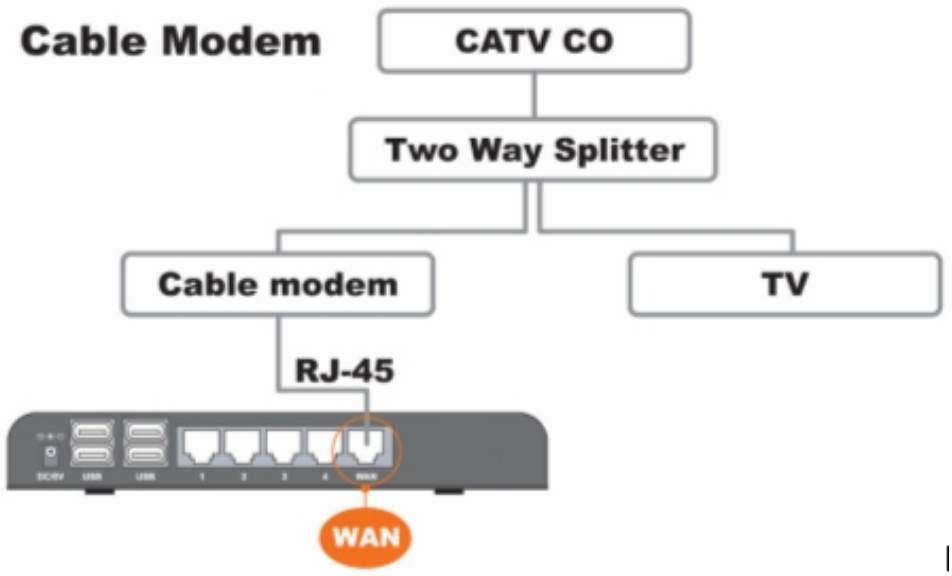
1.1 Overview

DN-11007-N is the latest model of networking product. It not only has the basic Internet firewall and IP sharing functions, but also contains several unique features, for instance, webcam monitor, print server, FTP server. The installations of Internet (via WAN with XDSL or Cable Modem) and local network (via LAN with computers) are shown as below.

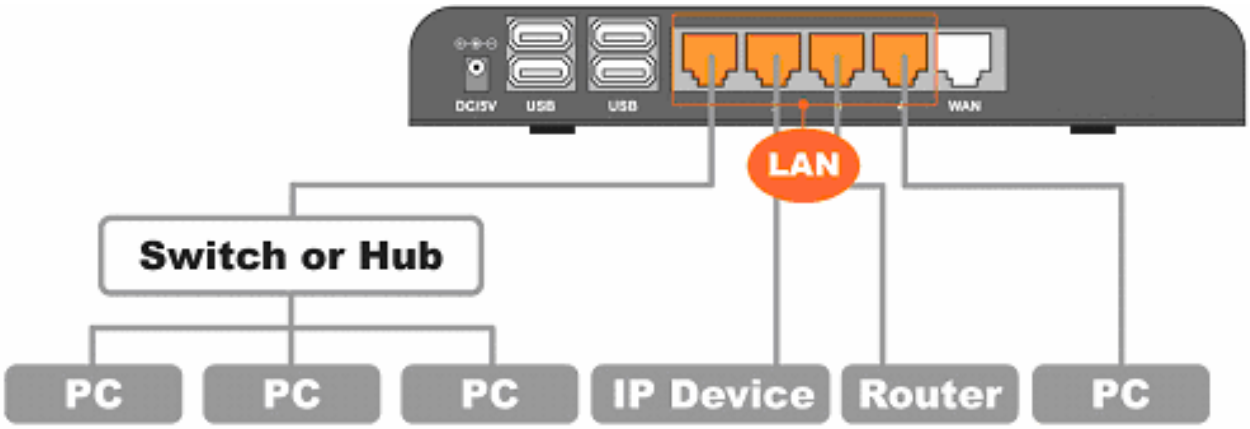
1.1.1 The installation of WAN with XDSL Modem



1.1.2 The installation of WAN with Cable Modem



1.1.3 The installation of LAN with computers



Notice: IP devices such as IP webcam, IP printer and IP Phone whose connector ports are RJ45.

1.2 Features

1.2.1 Webcam Monitor

DN-11007-N supports an USB Web Camera, which provide an easy and affordable solution for home security. It allows users to monitor home security with an USB Web camera from everywhere via Internet and also to be alerted the intrusions by email.

1.2.2 Print Server

DN-11007-N supports an USB printer. It allows all the computers sharing one USB printer on your network. With LPR protocol, users can share a printer from both WAN and LAN.

1.2.3 FTP Server

DN-11007-N supports FAT 16/ FAT 32 file system format. Plug with USB hard drive or thumb drive, DN-11007-N becomes a FTP server and users can share files from both WAN and LAN.

1.2.4 IP Sharing

DN-11007-N includes DHCP server, virtual server, virtual DMZ, NAT, IP Sharing, Internet firewall, URL filter, Mac address filter and DDNS. Through a DDNS hostname, it will be easier to use Webcam monitor and file transfer from WAN.

1.3 Specifications

WAN port	
Interface	Conforms to IEEE802.3 (100 BASE-TX/10 BASE-T) and bit rate 10/100 Mbps with auto cross-over function (MDI-X)
Protocol	TCP/IP
Transmission encoding method Ethernet	100 BASE-TX 4B5B/MLT-3 and 10 BASE-T Manchester coding
port connector	RJ45
Access method	CSMA/CD
Transmission rate	10/100 Mbps (auto-sensing)
IP obtaining method	Manual/DHCP
Number of ports	1 port
LAN Port	
Interface	Conforms to IEEE802.3 (100 BASE-TX/10 BASE-T) and bit rate 10/100 Mbps with auto cross-over function (MDI-X)
Protocol	TCP/IP
Transmission encoding method Ethernet	100 BASE-TX 4B5B/MLT-3 and 10 BASE-T Manchester coding
port connector	RJ45
Access method	CSMA/CD
Transmission rate	10/100 Mbps (auto-sensing)
Switching data transmitting method	Store & Forward
Buffer capacity	8 MB
MAC address learning table	1024 address self-learning method
Communication distance	100 m
IP obtaining method	Manual/DHCP
Number of ports	4 ports
Others	
USB port	4 USB Type A connectors support USB 2.0 and 1.1
Reset button	Push and hold for 5 seconds to restore factory setting
Management	Web-based manager
Firewall	NAT and SPI enhanced firewall to protect networked computers
DC power adapter	5VDC, 2A (minimum)
Size	200(L)x107.5(W)x27(H) mm
Weight	507g (device only)

1.4 System Requirements

To begin using DN-11007-N, you must have the following minimum system requirements.

A. ADSL/Cable Modem and broadband Internet Account.
B. One Ethernet (10 BASE-T or 10/100 BASE-TX) network interface card.
C. TCP/IP and at least one web browser software installed (E.g.: Internet Explorer or Netscape).

1.5 The Product Package

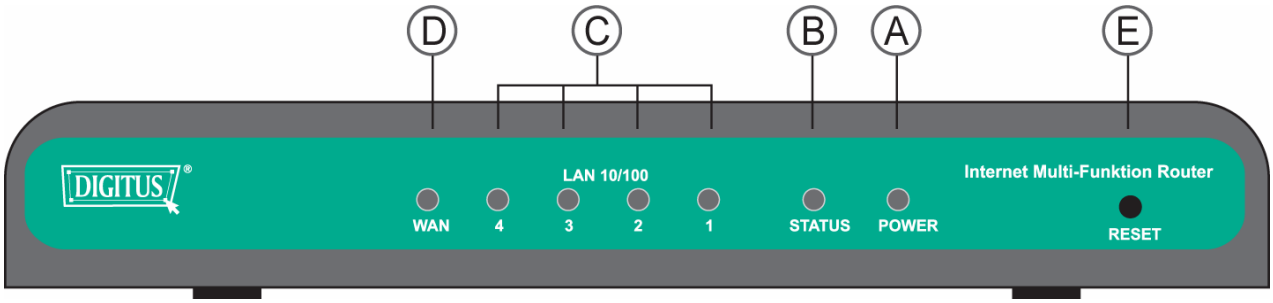
Your product package should contents the following items:

A. One DN-11007-N router unit
B. One DN-11007-N Quick Start Guide
C. One Power Adapter (5 Volts DC, 2 Amp)
D. One DN-11007-N CD (Quick Start Guide, User's Manual and Adobe Reader)
E. One Web Camera, able to support PC usage and one Driver CD. (Optional)

Notice: It can be plugged in DN-11007-N directly without loading its driver.

1.6 Front Panel Led Indicators

Please check your front panel led indicators. Make sure they work properly. If they failed, follow the troubleshooting state below.



A. Power (LED color: GREEN)

On: System is ready.

Off: There is no power. Please check your power adapter if connected firmly.

Flashing: Firmware upgrades failed.

B. Status (LED color: GREEN)

On: DN-11007-N is working properly.

Off: System is rebooting or down. Please wait for a moment. If it still cannot work, re-plug the adapter, or contact with your product provider.

C. LAN (LED color: GREEN)

On: Connector (computer/ switch/ hub) is plugged in.

Off: LAN port can't work. Please check the LAN cable whether it is plugged firmly, or try to connect another port for testing.

Flashing: Connector is transmitting/ receiving data.

D. WAN (LED color: GREEN)

On: XDSL or Cable Modem is connected.

Off: Your WAN port can' work. Please check the networking cable whether it is connected to your DN-11007-N properly, or check your ISP.

Flashing: Modem is sending/ receiving data.

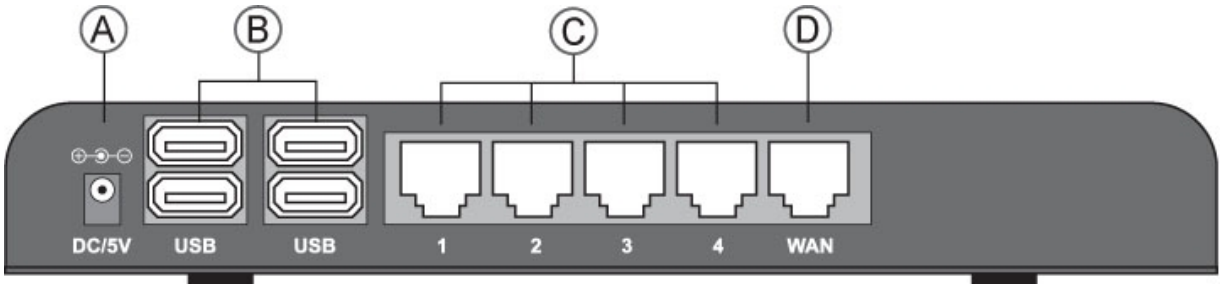
E. RESET Button

To restore the factory default values.

One press for 5 seconds to reset for cleaning the former values.

Notice: The actions should be done under the power-on condition

Rear Panel

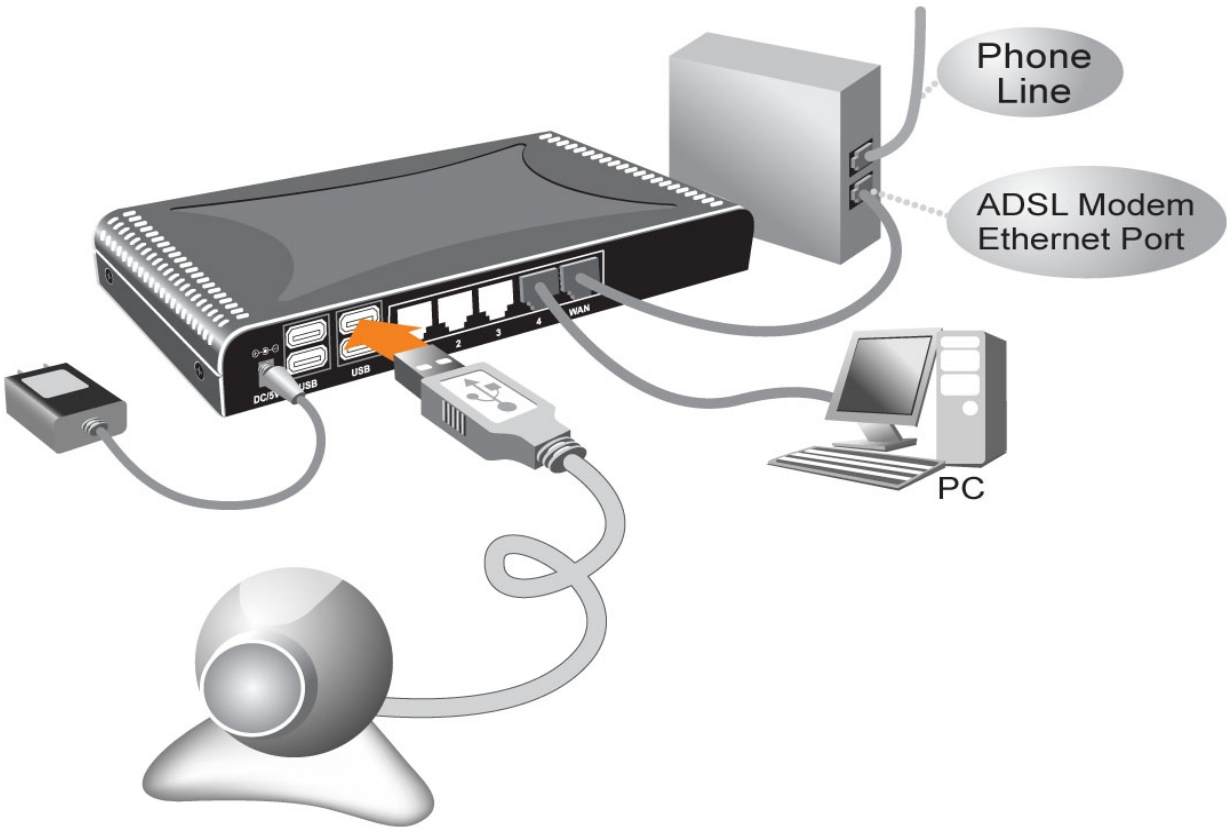


A. Power Inlet: For Power Adapter (5VDC/2A). Incorrect type will damage DN-11007-N.
B. USB Port: For USB 1.1/ 2.0 devices. (REF: Chapter5)
C. LAN Port (RJ-45): For computer, switch and hub.
D. WAN Port (RJ-45): XDSL/ Cable Modem.

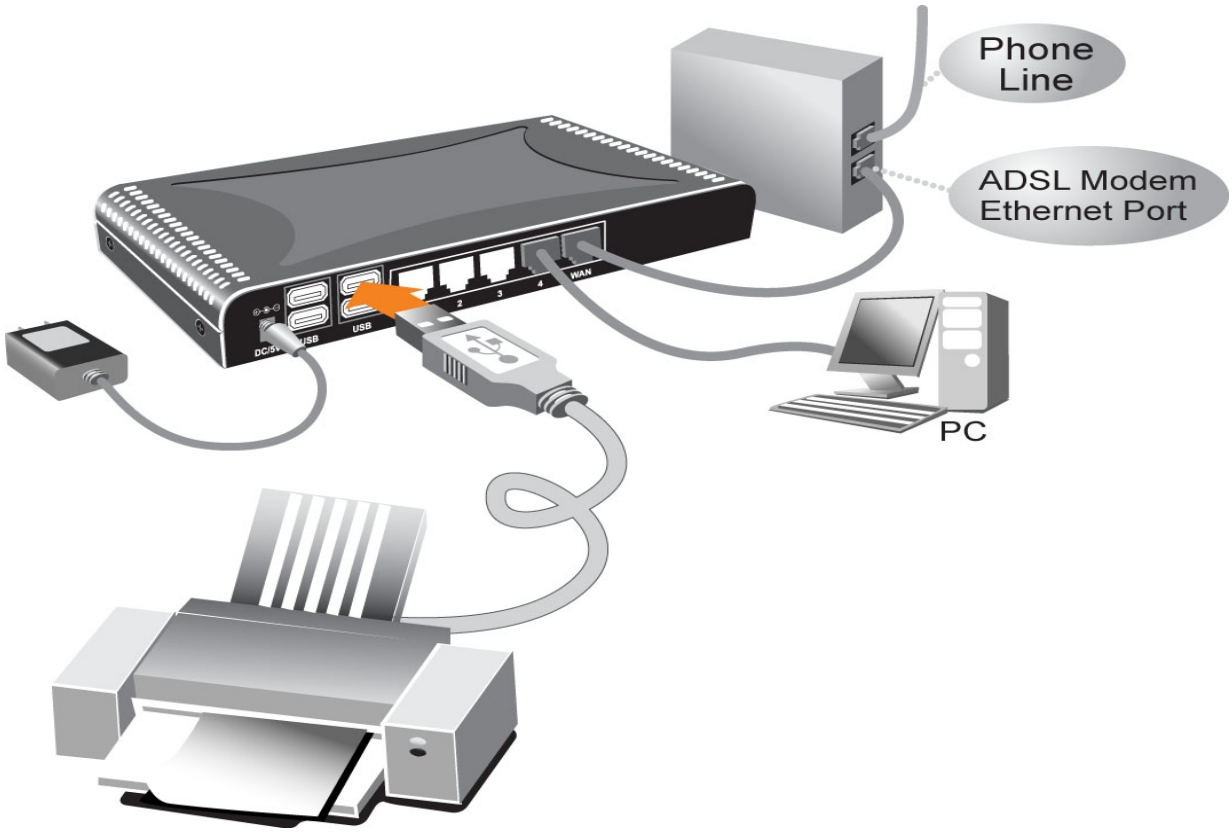
1.7 Hardware Connections

Connect the hardware you want to the proper positions.

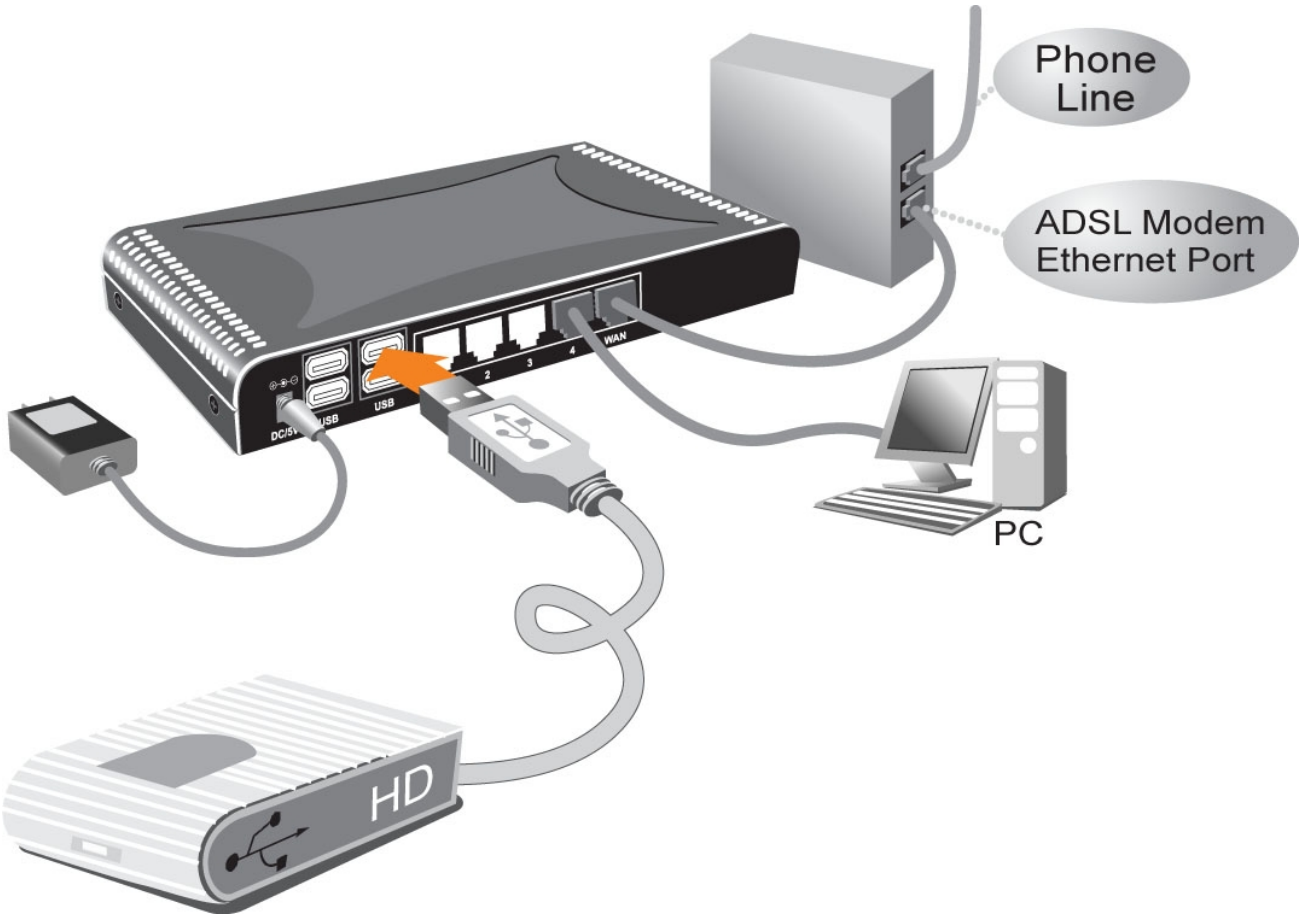
1. If you want to connect a web cam, please follow the figure below.



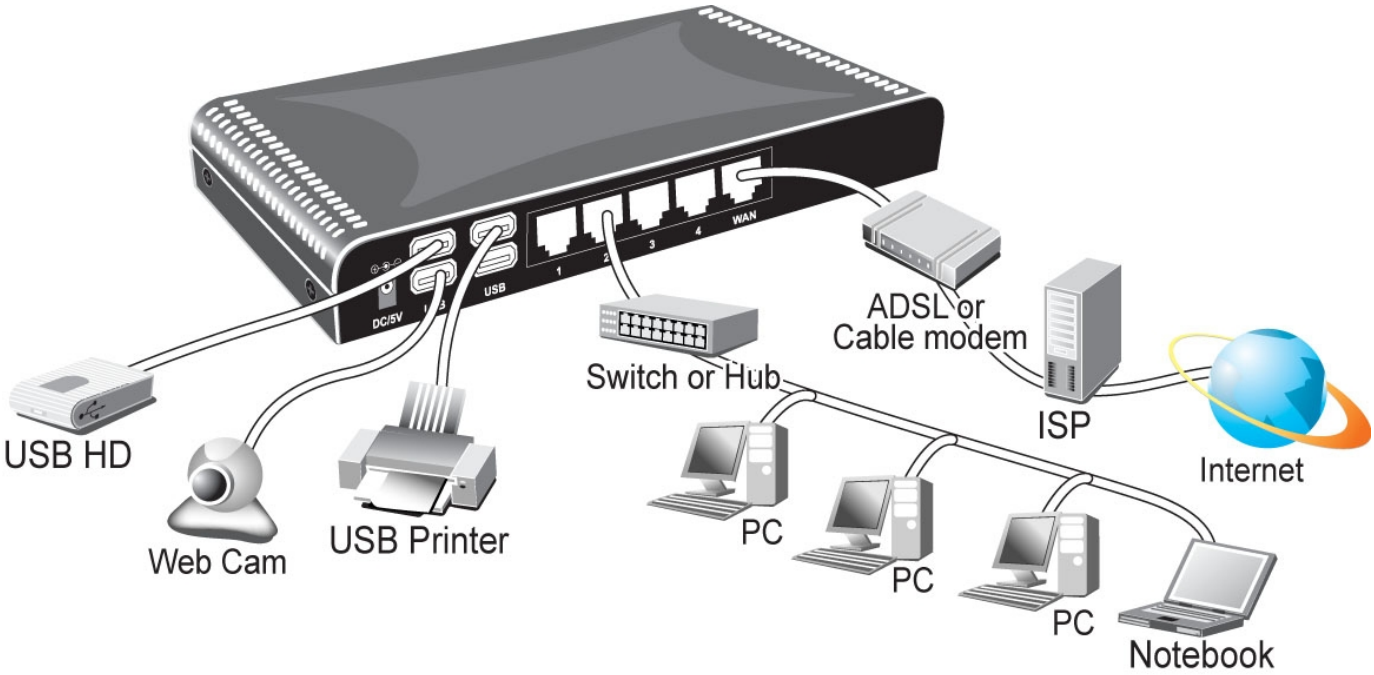
2. If you want to connect a printer, please follow the figure below.



3. If you want to connect a USB hard disk, please follow the figure below.

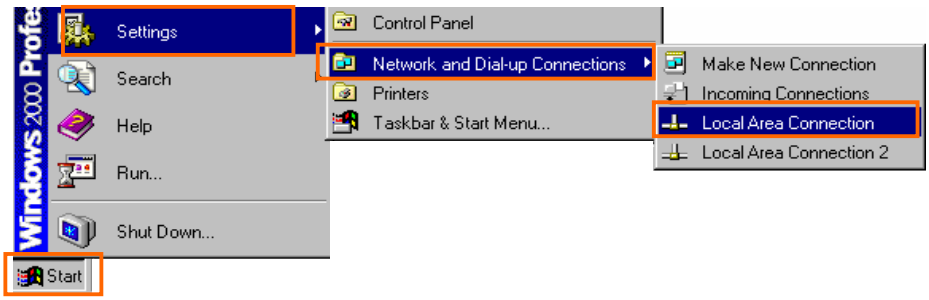


4. If you want to put all devices mentioned above and connect PCs together, please follow the figure below.

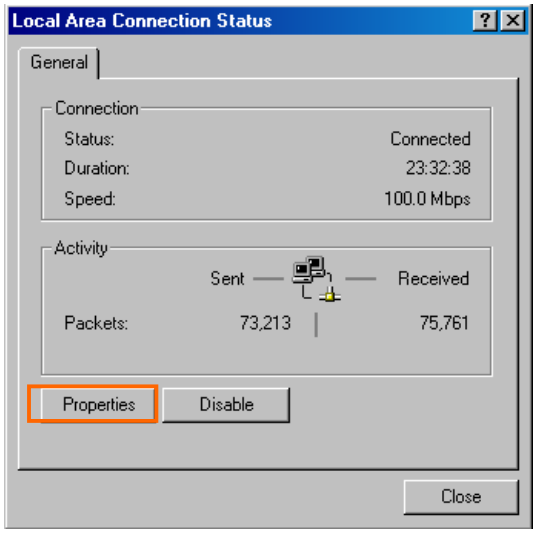


1.8 Get your IP Automatically & Manually

After connecting DN-11007-N to your computer, please make sure your IP is in the automatic IP position or you want it manually. If you don't know how to enter the settings, please follow the steps below.

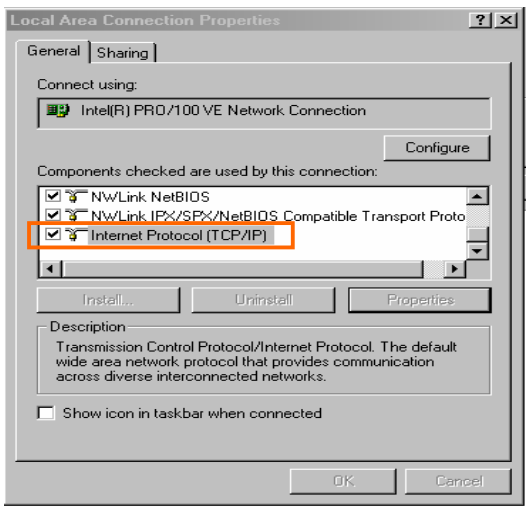


【Step1】
Click Start>Settings> Network and Dial-up Connections, then Local Area Connection.

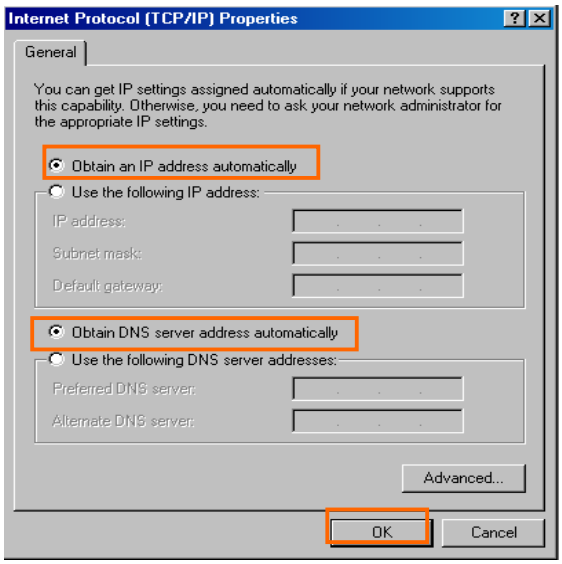


【Step2】
Click Properties.

.

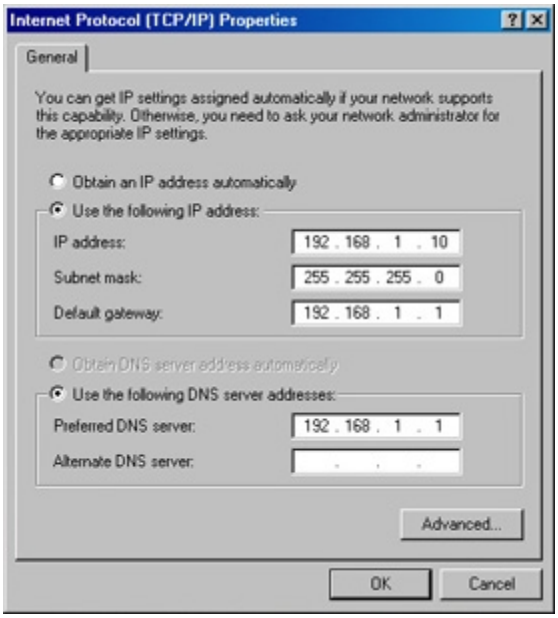


【Step3】
Double click Internet Protocol (TCP/IP).



【Step4-1】

Get IP Automatically, please ignore Get IP Manually. Please select “Obtain an IP address automatically” and “Obtain DNS



【Step4-2】

Get IP Manually, please ignore Get IP Automatically. If you configure your IP address manually, the following default setting of DN-11007-N should be known:

1. IP Address: 192.168.1.1
2. Subnet Mask: 255.255.255.0

If you configure your computer’s IP manually, it needs to be on the same network segment. For example:

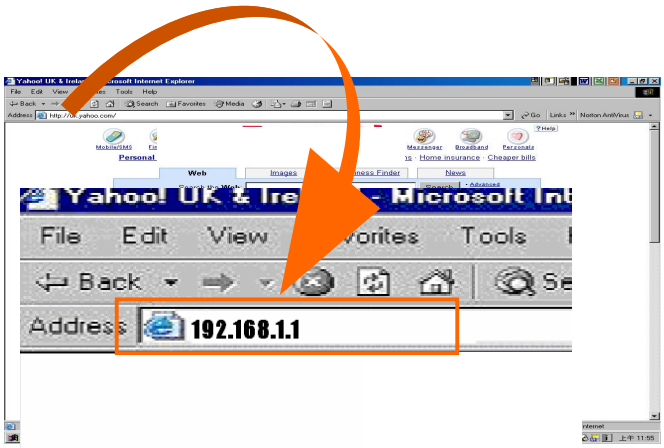
1. IP Address: 192.168.1.xxx (xxx can be any number between 2 and 254, but it can’t repeat, we use 10 to be the example.)
   Notice: IP address and Default gateway couldn’t be the same.
2. Subnet Mask: 255.255.255.0 (same as the DN-11007-N)
3. Gateway: 192.168.1.1 (this is the IP address of DN-11007-N)
4. DNS: 192.168.1.1 (use the DN-11007-N IP address or your own choice).

Chapter 2: DN-11007-N Home page

In this Chapter, DN-11007-N Home page is divided into two parts. The first part is **How to link DN-11007-N's Home page**. Follow the instructions, you can know how to get in DN-11007-N's setting screen easily. The second part is **How to enter DN-11007-N's setting items**. It lists all the setting functions of the Main Menu.

2.1 How to link DN-11007-N Home page

Please follow the steps below to link DN-11007-N's Home page.



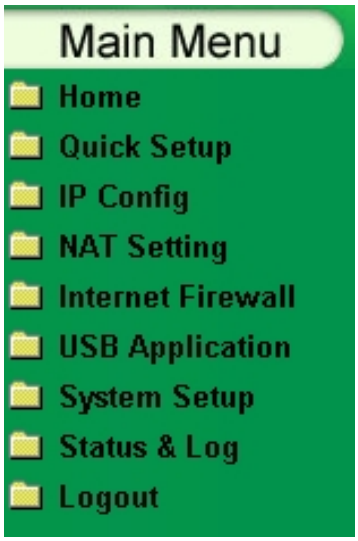
【Step1】

1. Open Internet browser as an example.
2. Enter **192.168.1.1** in the address field.
   Then, press **Enter**.

【Step2】

DN-11007-N's Login Screen appears.

1. Enter **admin** in both **User Name** and **Password** blank fields.
2. Then, click **Login**.



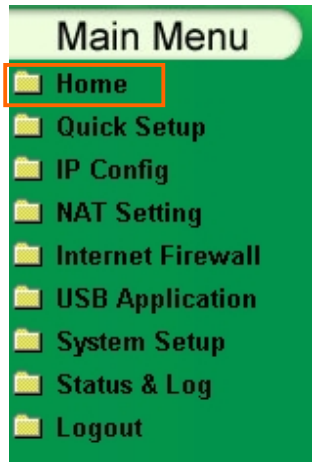
【Step3】
Select the functional items you want under the **Main Menu** bar to do related settings.

2.2 How to enter DN-11007-N's setting items

The Main Menu includes total 9 functional items as showed below. Select a specific item you want in the left panel and it will reveal its sub-menu items. Follow the instructions of Chapter 3 to setup DN-11007-N.

Chapter 3: DN-11007-N Settings

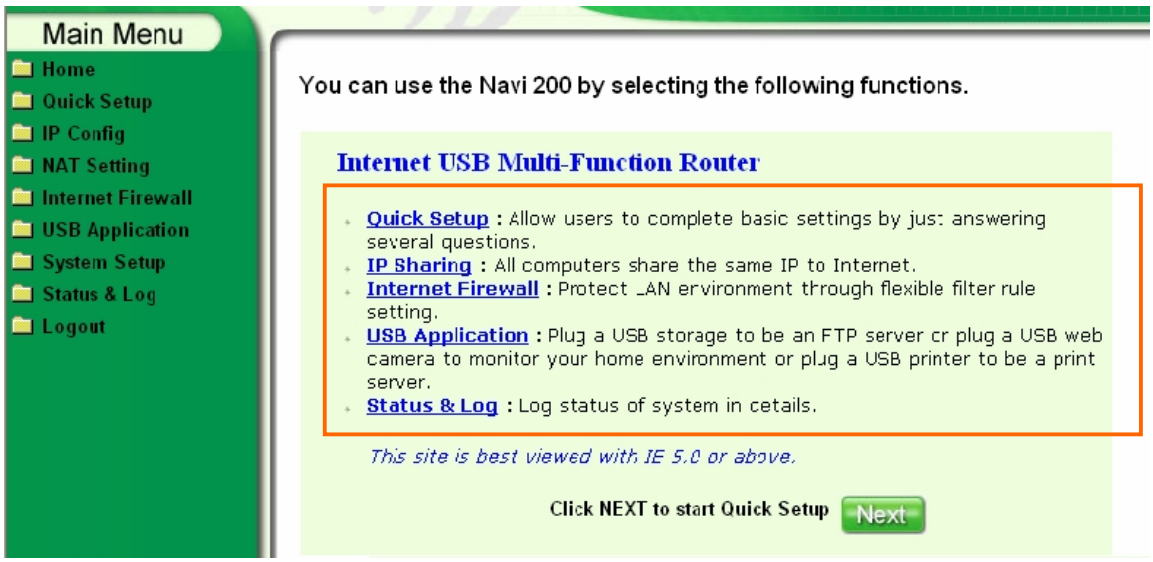
3.1 Home



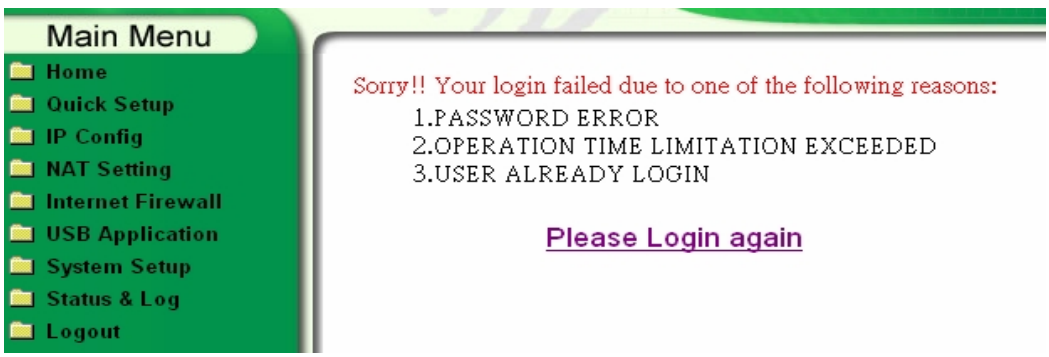
Home

The **Home** page lists all functional items for your quick link. Click this item will also help you to back to DN-11007-N's Main Menu.

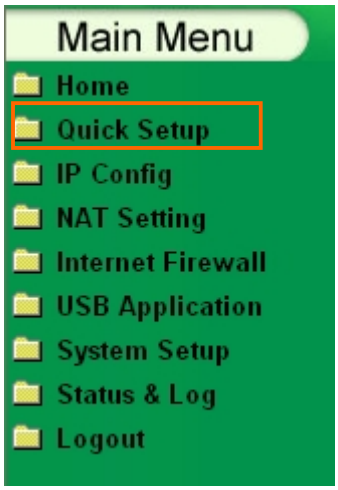
The 6 functional items, showed on the central part are the most common use, **Quick Setup**, **IP Sharing**, **Internet Firewall**, **USB Application**, **Printer Sharing** and **Status & Log** are selected from Main Menu for your convenience. Of course, your can set what you want from the Main Menu bar.



Warning: If you leave DN-11007-N's setting screen unused over 5 minutes after clicking, it will appear the following screen to ask you to login again.



3.2 Quick Setup



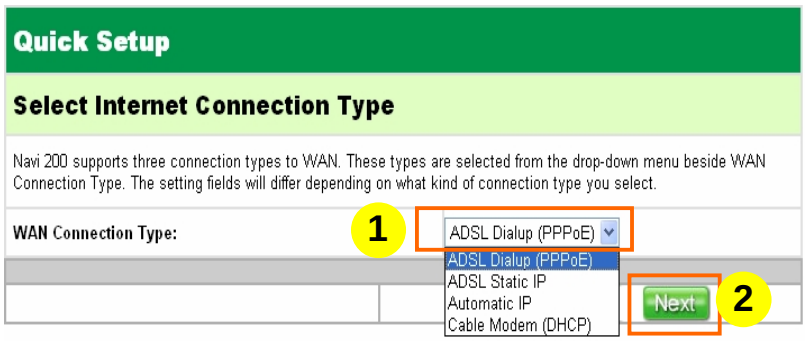
WAN Connection Type

Select **Quick Setup** menu to enter the Quick Setup page. DN-11007-N supports **four** WAN connection types. These types are selected from the drop-down menu beside WAN Connection Type. The setting fields will differ depending on what kind of connection type you select. Follow the instructions to setup DN-11007-N.

※ Tips are given when you move your cursor over each item.

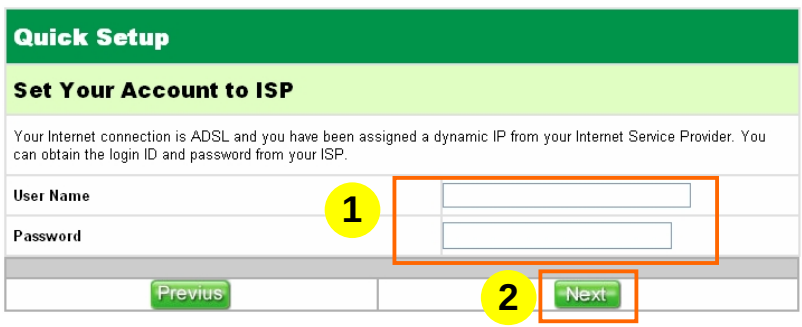
3.2.1 ADSL Dialup (PPPoE)

If your ISP supply you the **PPPoE** connection type, please follow the steps to setup your WAN connection.



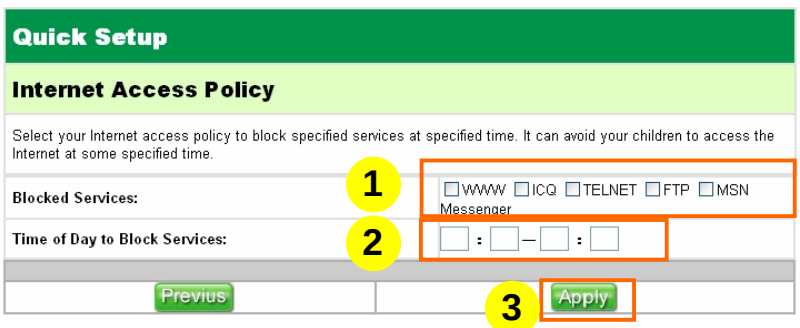
【Step1】

1. Select **ADSL Dialup (PPPoE)**.
2. Then, click **Next**.



【Step2】

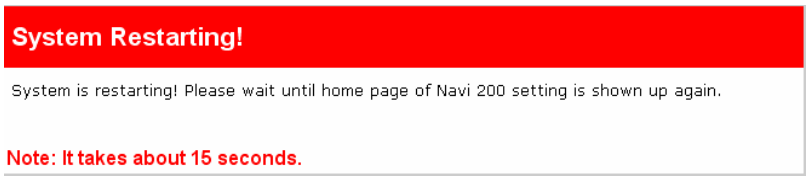
1. Input your **User Name** and **Password** supplied by your ISP.
2. Click **Next**.



【Step3】

If you don't want to do any block setting, please ignore the item 1 and 2.

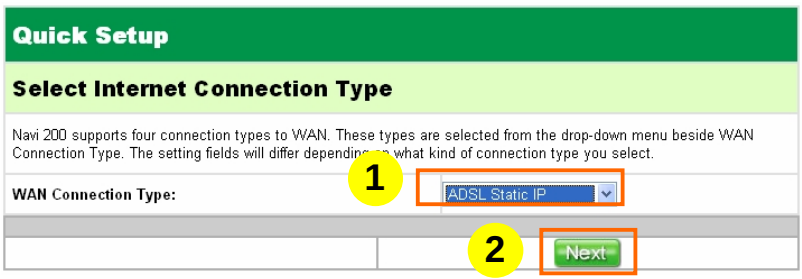
1. Select the services you want to block.
2. Set a time period you want to block the services you set above.
3. Click **Apply**.



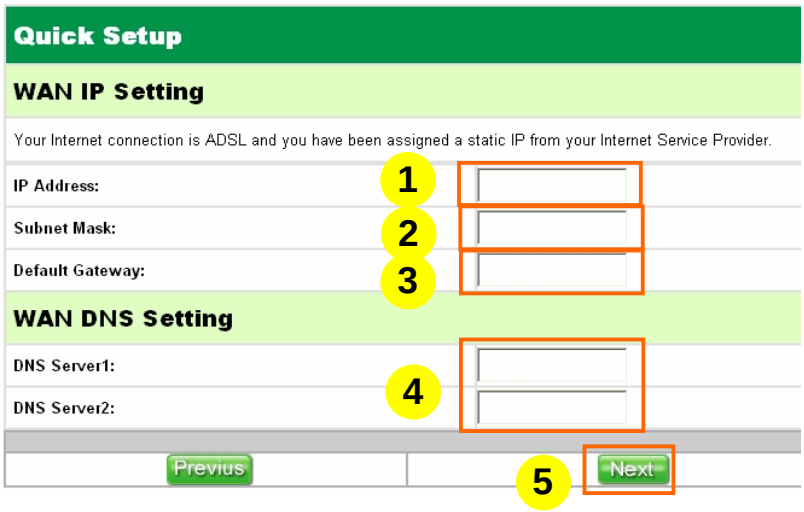
【Step4】
It will take you 15 seconds to save your settings and restart the device.

3.2.2 ADSL Static IP

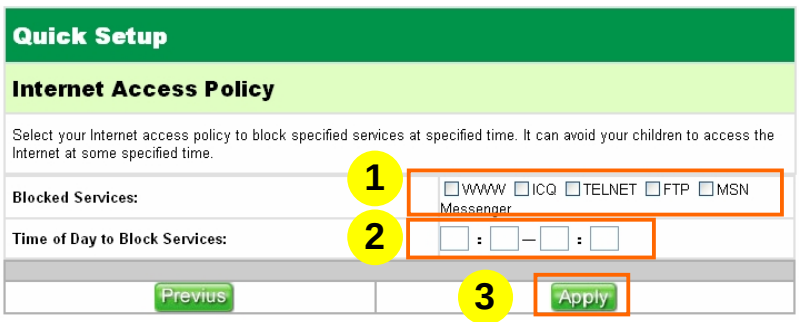
If your ISP supply you the **Static IP** connection type, please follow the steps to setup your WAN connection.



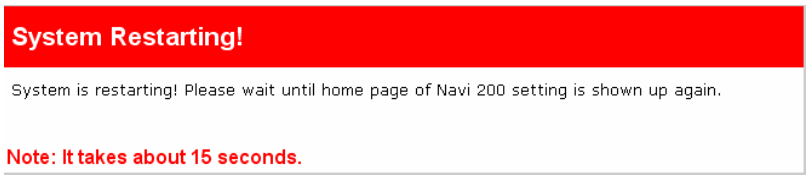
【Step1】
1. Select **ADSL Static IP**.
2. Then, click **Next**.



【Step2】
1. Input the **IP Address** supplied by your ISP.
2. Input **Subnet Mask**. Typically, it is **255.255.255.0**.
3. Input in your **Default Gateway** supplied by your ISP.
4. Input your DNS Server1 and Server2. If you don't know yours, please check on your ISP.
5. Click **Next**.



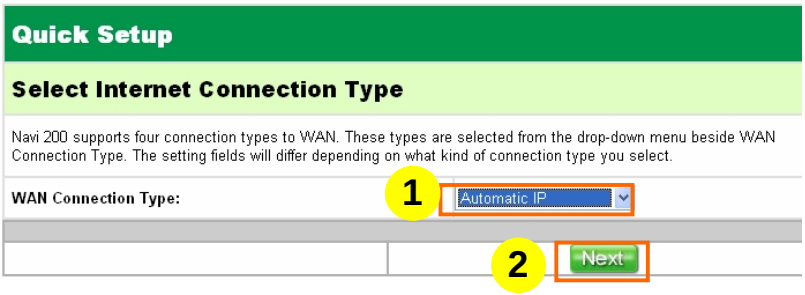
【Step3】
If you don't want to do any block setting, please ignore the item 1 and 2.
1. Select the services you want to block.
2. Set a time period you want to block the services you set above.
3. Click **Apply**.



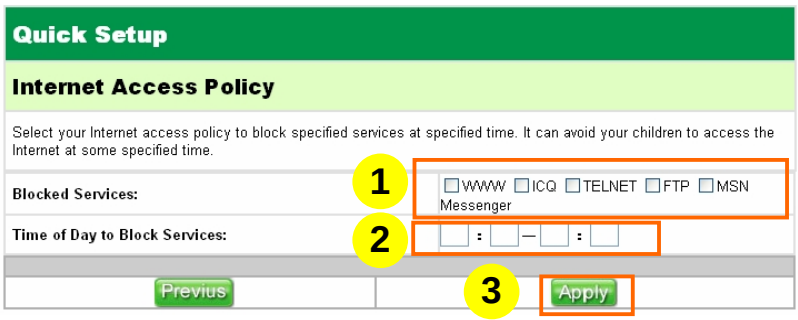
【Step4】
It will take you 15 seconds to save your settings and restart the device.

3.2.3 Automatic IP

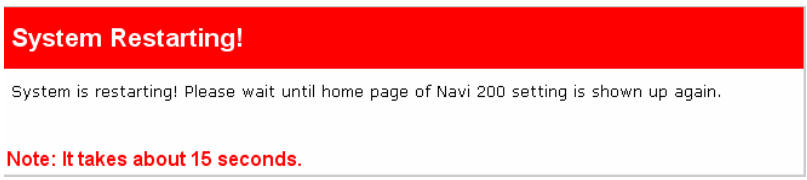
If your ISP supply you the **Automatic IP** connection type, please follow the steps to setup your WAN connection.



【Step1】
1. Choose **Automatic IP**.
2. Click **Next**.



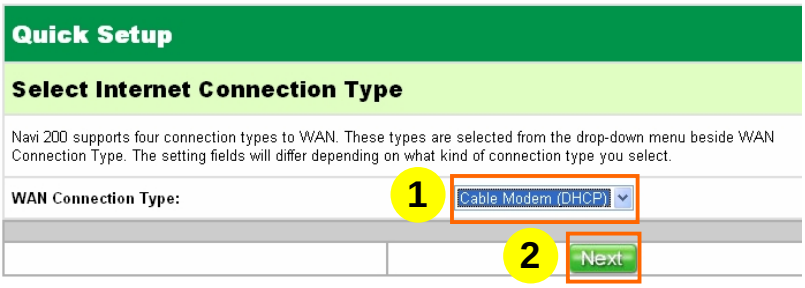
【Step2】
If you don't want to do any block setting, please ignore the item 1 and 2.
1. Select the services you want to block.
2. Set a time period you want to block the services you set above.
3. Click **Apply**.



【Step3】
It will take you 15 seconds to save your settings and restart the device.

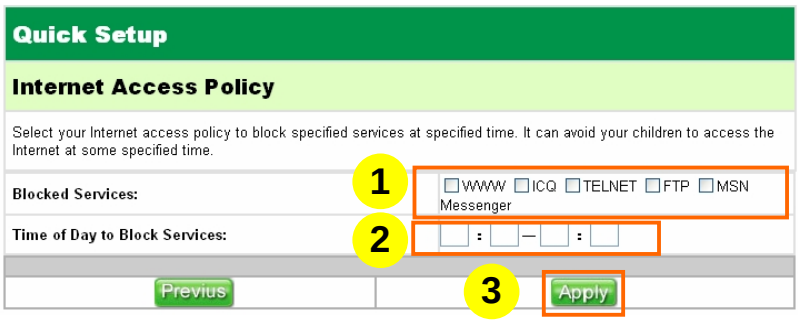
3.2.4 Cable Modem (DHCP)

If your ISP supply you the Cable Modem **(DHCP)** connection type, please follow the steps to setup your WAN connection.



【Step1】

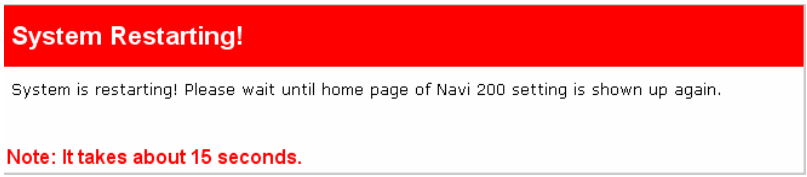
1. Choose **Cable Modem (DHCP)**.
2. Then, click **Next**.



【Step2】

If you don't want to do any block setting, please ignore the item 1 and 2.

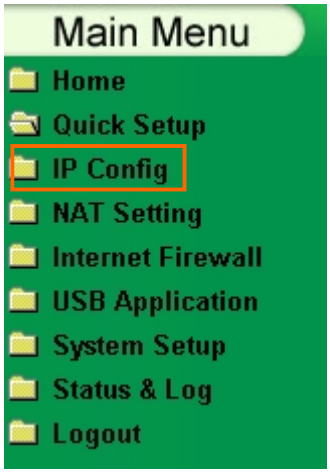
1. Select the services you want to block.
2. Set a time period you want to block the services you set above.
3. Click **Apply**.



【Step3】

It will take you 15 seconds to save your settings and restart the device.

3.3 IP Config

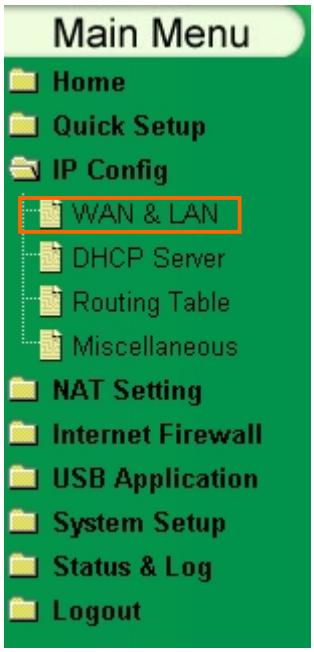


IP Config

IP Config contains four functional items, includes **WAN & LAN**, **DHCP Server**, **Routing Table** and **Miscellaneous**. Follow the instructions to configure your settings.

※ Tips are given when you move your cursor over each item.

3.3.1 WAN & LAN



Select **WAN & LAN** in the **IP Config** menu.

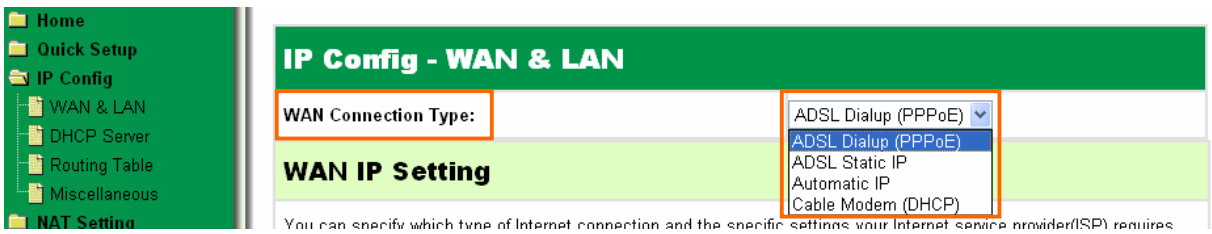
DN-11007-N supports **four** WAN connection types as listed below:

1. ADSL Dialup (PPPoE)
2. ADSL Static IP
3. Automatic IP
4. Cable Modem (DHCP).

Follow the instructions to enter the WAN & LAN page.

※ Tips are given when you move your cursor over each item.

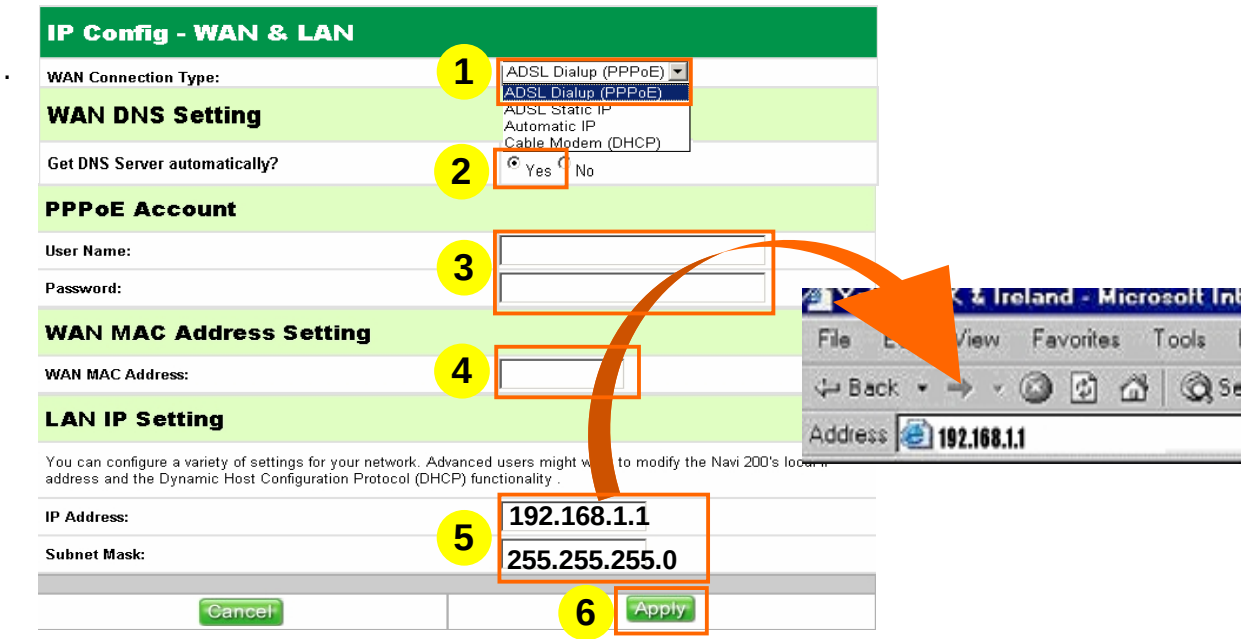
You can select your WAN connection type from the drop-down menu beside *WAN Connection Type*. The setting fields will differ depending on what kind of WAN connection type you select. Follow the instructions to setup your WAN connection. The *WAN Connection Type* field will show the WAN connection type that you have chosen.



3.3.1.1 ADSL Dialup (PPPoE)

If your WAN connection type is **ADSL Dialup (PPPoE)**, please follow the instructions to complete the setup of WAN connection.

1. **WAN Connection Type:**
   Select **ADSL Dialup (PPPoE)** from the menu of *WAN Connection Type* first.
2. **WAN DNS Setting**
   Select **Yes** to get DNS Server automatically.
3. **PPPoE Account**
   Input **User Name** (＊1) and **Password** supplied by your ISP.
4. **WAN MAC Address Setting**
   The original default is supplied by producer. We recommend you don't change it.
5. **LAN IP Setting**
   The default value of LAN IP address is **192.168.1.1** (＊2), Subnet Mask is **255.255.255.0**.
6. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



＊1:

This is the name of your Internet account. Some ISPs work with the entire account name along with the hosting domain (such as your_name@yourdomain.com) and others require that you enter only the account name (your_name).

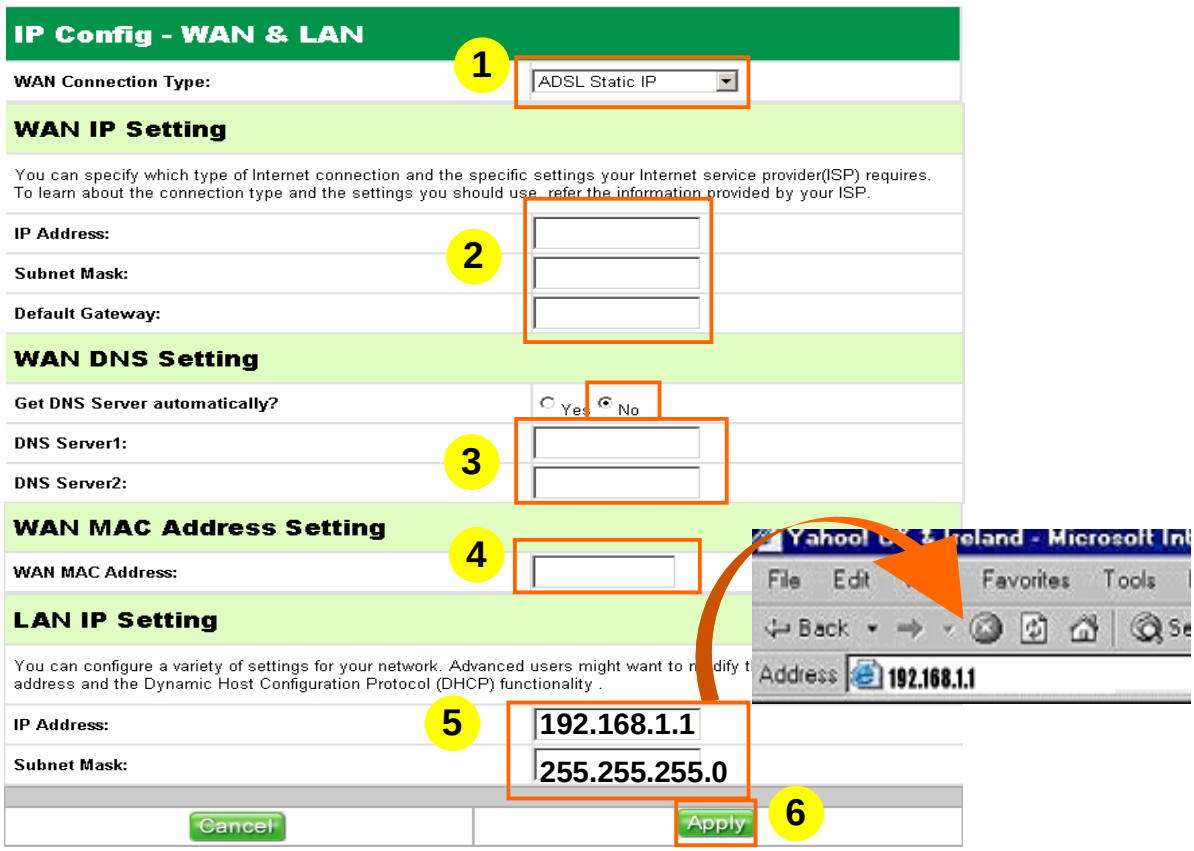
＊2:

You can change this default LAN IP address depending on demand, for example, **192.168.2.X**. Please notice that means you have to login DN-11007-N's setting screen with the same LAN IP address, **192.168.2.X**.

3.3.1.2 ADSL Static IP

If your WAN connection type is **ADSL Static IP**, please follow the instructions to complete the setup of WAN connection.

1. **WAN Connection Type:**
   Select **ADSL Static IP** from the menu of *WAN Connection Type* first.
2. **WAN IP Setting**
   Input **IP Address**, **Subnet Mask** and **Default Gateway** in the field of WAN IP Setting. If you don't know, please check with your ISP.
3. **WAN DNS Setting**
   Select **No**, it means do not get DNS Server automatically, and input your WAN DNS Setting. If you don't know, check with your ISP.
4. **WAN MAC Address Setting**
   The original default is supplied by producer. We recommend you don't change it.
5. **LAN IP Setting**
   The default value of LAN IP address is **192.168.1.1** (＊3), Subnet Mask is **255.255.255.0**.
6. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



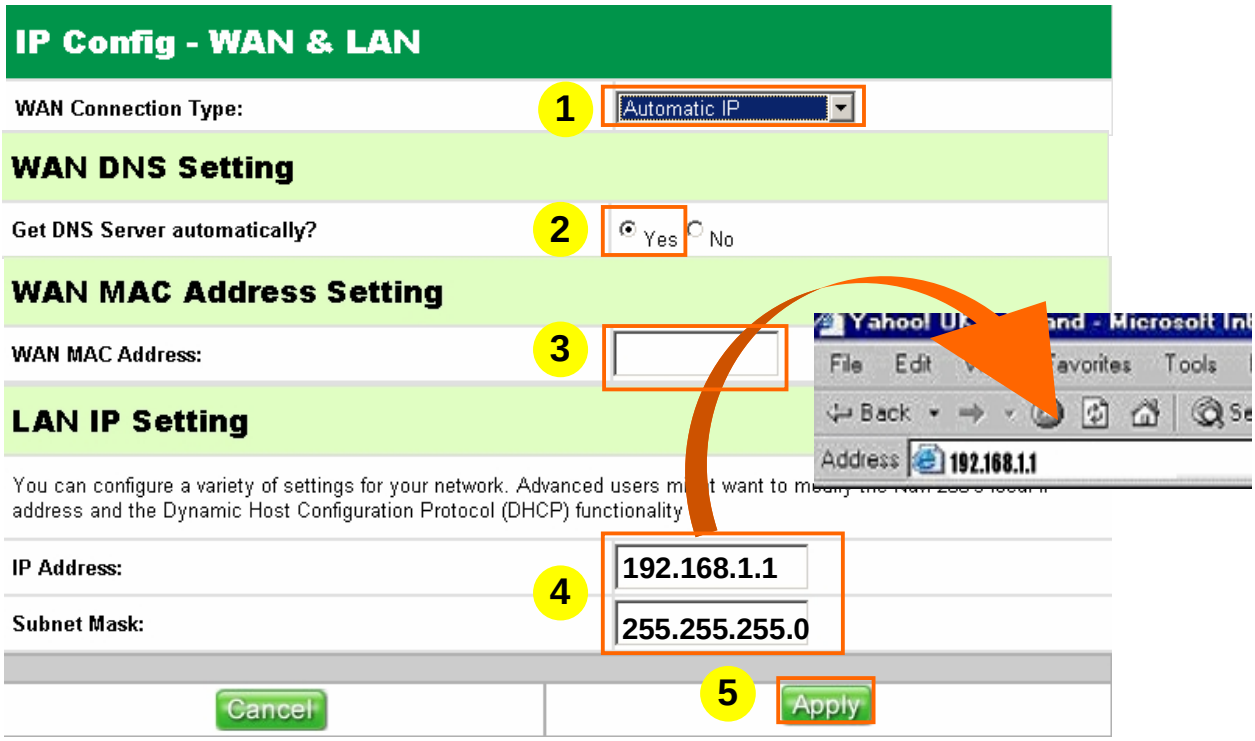
＊3:

You can change this default LAN IP address depending on demand, for example, **192.168.2.X**. Please notice that means you have to login DN-11007-N's setting screen with the same LAN IP address, **192.168.2.X**.

3.3.1.3 Automatic IP

If your WAN connection type is **Automatic IP**, please follow the instructions to complete the setup of WAN connection.

1. **WAN Connection Type:**
   Select **Automatic IP** from the menu of *WAN Connection Type* first.
2. **WAN DNS Setting**
   Select **Yes** to get DNS Server automatically.
3. **WAN MAC Address Setting**
   The original default is supplied by producer. We recommend you don't change it.
4. **LAN IP Setting**
   The default value of LAN IP address is **192.168.1.1** (＊4), Subnet Mask is **255.255.255.0**.
5. **Apply & Cancel**
   Then, click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



＊4:

You can change this default LAN IP address depending on demand, for example, **192.168.2.X**. Please notice that means you have to login DN-11007-N's setting screen with the same LAN IP address, **192.168.2.X**.

3.3.1.4 Cable Modem (DHCP)

If your WAN connection type is **Cable Modem (DHCP)**, please follow the instructions to complete the setup of WAN connection.

1. **WAN Connection Type:**

Select **Cable Modem (DHCP)** from the menu of *WAN Connection Type* first.

2. **WAN DNS Setting**

Select **Yes** to get DNS Server automatically.

3. **WAN MAC Address Setting**

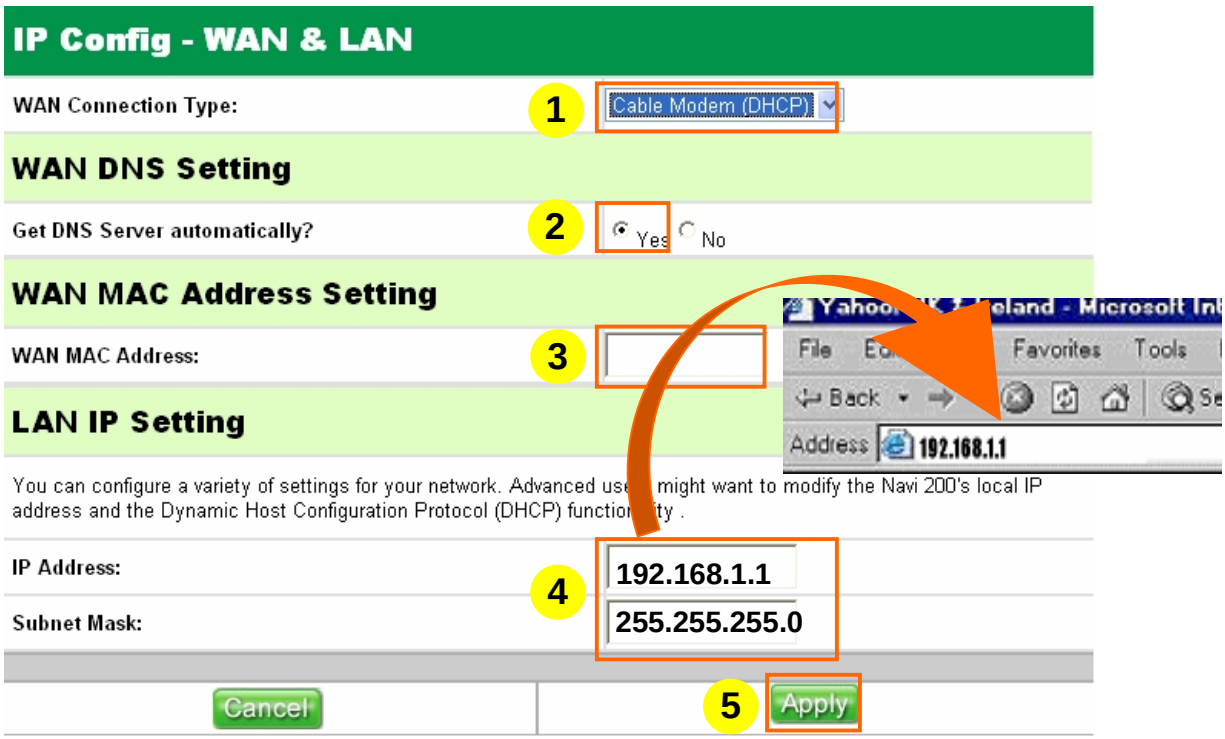
The original default is supplied by producer. We recommend you don't change it.

4. **LAN IP Setting**

The default value of LAN IP address is **192.168.1.1** (＊5), Subnet Mask is **255.255.255.0**.

5. **Apply & Calcel**

Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



＊5:

You can change this default LAN IP address depending on demand, for example, **192.168.2.X**. Please notice that means you have to login DN-11007-N's setting screen with the same LAN IP address, **192.168.2.X**.

3.3.2 DHCP Server

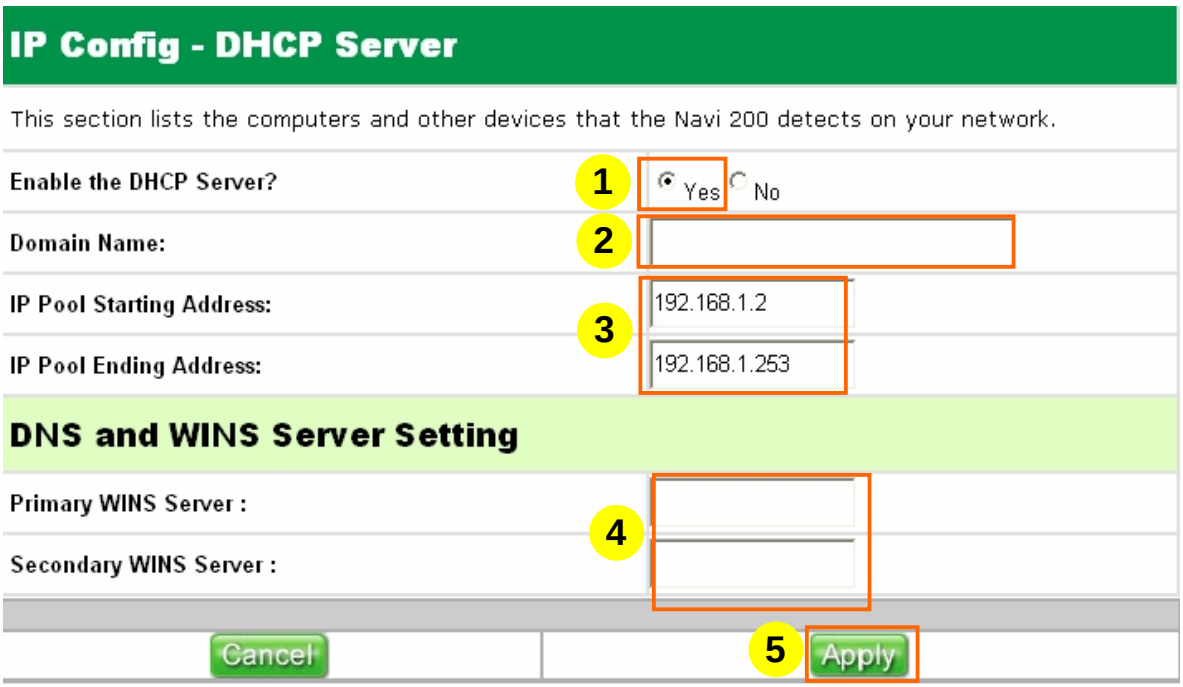
This section lists all the computers and other devices that DN-11007-N detects on your network. Please follow the instructions to configure your settings.

Select **DHCP Server** in the **IP Config** menu.
DN-11007-N supports up to **253** IP addresses for your local network.
The IP address can be provided by the network administrator or obtained automatically from DN-11007-N, if the DHCP server is enabled.
Follow the instructions to enter the DHCP Server page.

※ ***Tips are given when you move your cursor over each item.***

DHCP allows you to manage and distribute IP addresses throughout your network from DN-11007-N. Please follow the instructions to complete the setup of DHCP Server.

1. **Enable the DHCP Server?**
   Click **Yes** or **No** to enable or disable the DHCP Server. DHCP server supports 253 IP addresses at most for your local network. If the DHCP server is enabled, managers can assign them or let them be obtained automatically.
2. **Domain Name:**
   Domain Name is the name which you had registered from NIC (Network Information Center). If managers don't apply for a domain name, ignore this part.
3. **IP Pool Starting/ Ending Address:**
   IP Pool Starting and Ending Address can be set to control the number of users to get in. As showed below, it allows 253 users to enter among the number 2 to 253.
4. **DNS and WINS Server Setting**
   Input a WINS server IP, if there is a WINS Server(＊6) in the local network.
5. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



When you enable DHCP on a network, you allow DN-11007-N to assign temporary IP addresses to your computers whenever they connect to your network. The assigning device is called a DHCP Server, and the receiving device is a DHCP client.

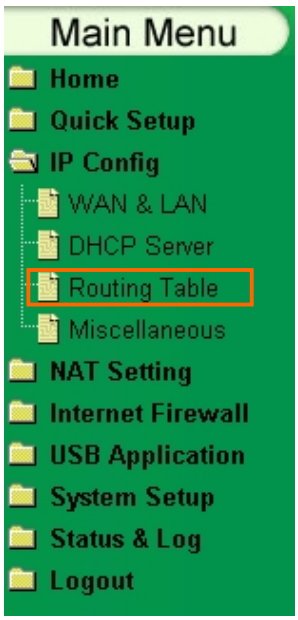
Without DHCP, you would have to configure each computer separately with IP address and related information.

＊6:

The WINS (Windows Internet Naming Service) manages interaction of each PC with the Internet. If you use a WINS Server, input the IP address of the WINS Server in the fields.

3.3.3 Routing Table

This function allows you to add routing rules into DN-11007-N. It is useful if you connect several computers behind DN-11007-N to share the same connection to Internet. Follow the steps.

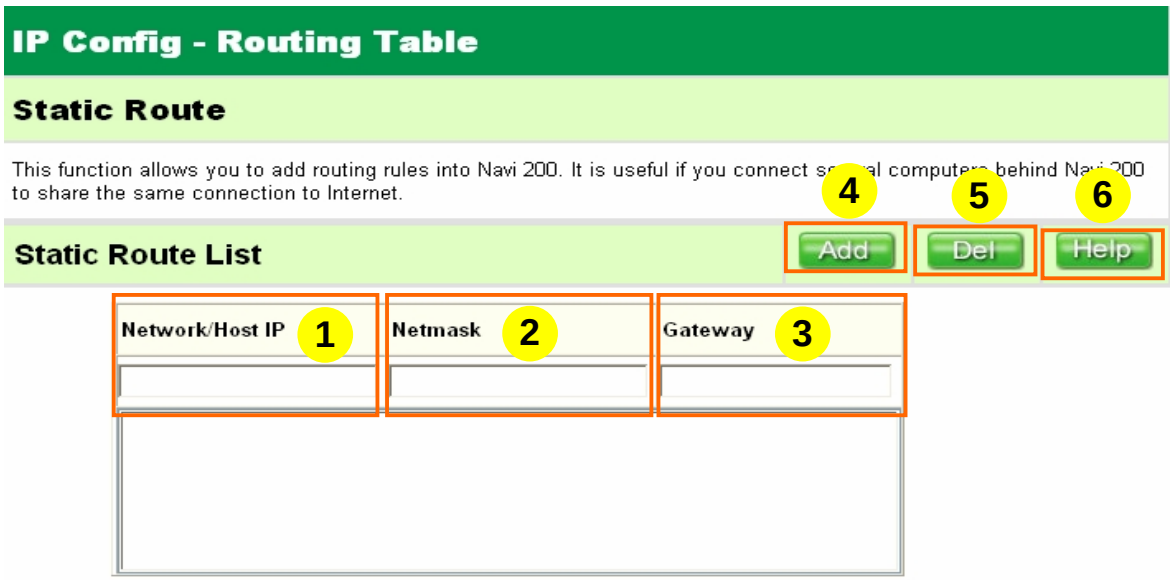


Select **Routing Table** in the **IP Config** menu.
DN-11007-N supports **two** Routing modes, Static Route and Dynamic Route. Follow the instructions to enter the Routing Table page.
※ Tips are given when you move your cursor over each item.

3.3.3.1 Static Route

Please follow the instructions to complete the setup of Static Router.

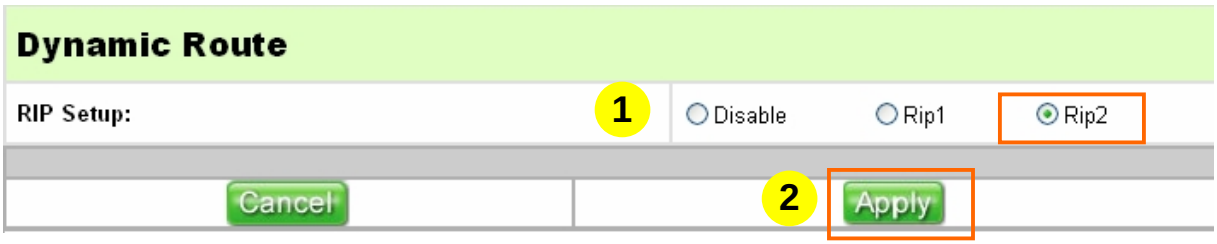
1. **Network/Host IP**
   It stands for the destination network or host of a route rule. So it could be a host address **192.168.123.11** or a network address, such as **192.168.0.0**.
2. **Netmask**
   It stands for the netmask of an added network route. If the destination is a host, its netmask should be **255.255.255.255**.
3. **Gateway**
   It stands for the IP address of gateway where packets are routed to. The specified gateway must be reachable first. It means you have to set up a static route to the gateway beforehand.
4. **Add**
   Input data into first row of table, then press **Add** to insert it. System will remind you if the table is full or required fields are not filled ok.
5. **Del**
   Select one entry in table, or press **Ctrl** and select multiple entries in tables, then press **Del** to delete them.
6. **Help**
   If you don't know how to do it, please click **Help** for more information.



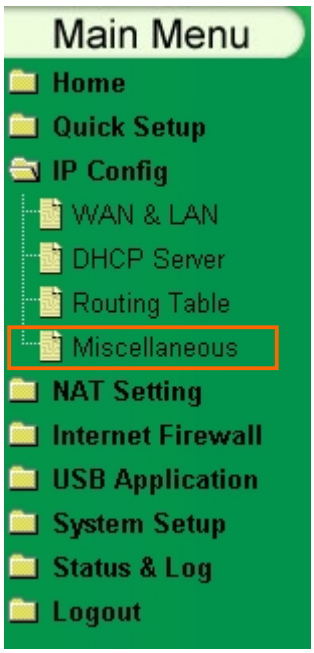
3.3.3.2 Dynamic Route

Please follow the instructions to complete the setup of Dynamic Route.

1. **RIP Setup:**
   The default RIP Setup is in the Rip2 position. Enable this function. Your DN-11007-N will build a routing table automatically, and get a path to the destination.
2. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel.**



3.3.4 Miscellaneous



Select **Miscellaneous** in the **IP Config** menu.
Follow the instructions to enter the Miscellaneous page. This setting is the key point that each manager has rights to allow clients to use DN-11007-N's from WAN.

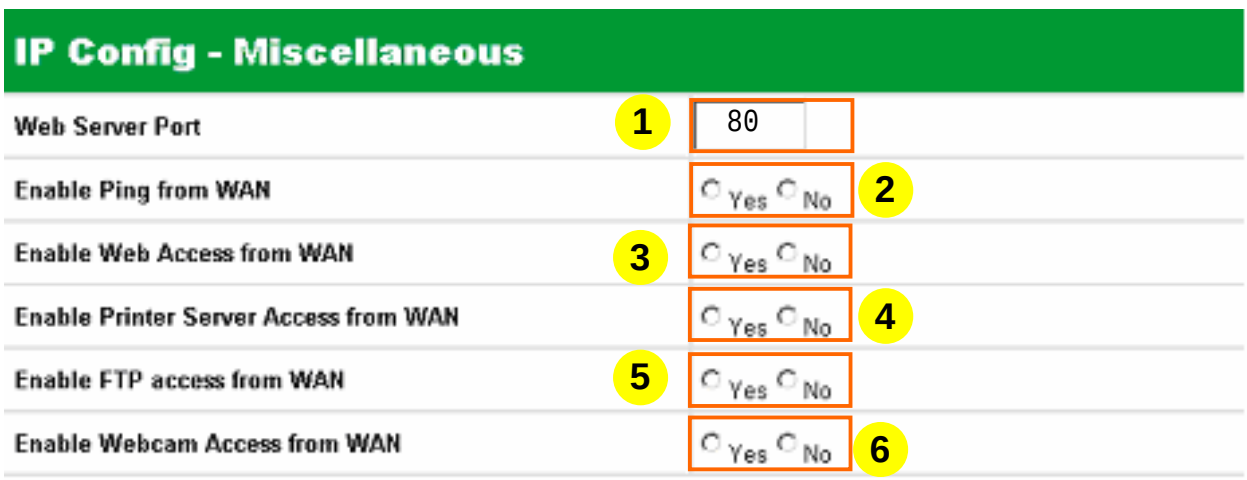
※ Tips are given when you move your cursor over each item.

※ Notice:

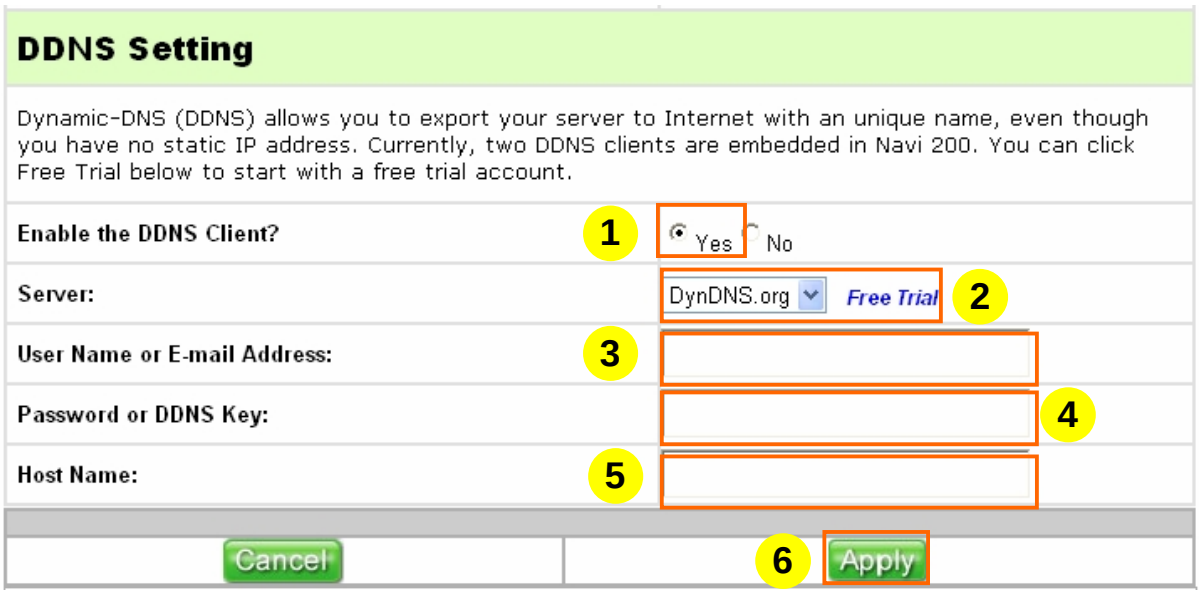
After setting DN-11007-N's external devices, such as USB Web Camera, USB Printer, USB HD, you can make choice if open rights to allow clients to access from WAN.

Please follow the instructions to complete the setup to allow clients to access DN-11007-N's from WAN.

1. **Web Server Port**
   The default port **80** is reserved for "http" protocol.
2. **Enable Ping from WAN**
   Select **Yes** or **No** to enable or disable ping from WAN.
3. **Enable Web Access from WAN**
   Select **Yes** or **No** to enable or disable Web Access from WAN.
4. **Enable Printer Server Access from WAN**
   Select **Yes** or **No** to enable or disable printer server access from WAN.
5. **Enable FTP access from WAN**
   Select **Yes** or **No** to enable or disable FTP access from WAN.
6. **Enable Webcam Access from WAN**
   Select **Yes** or **No** to enable or disable webcam access from WAN.



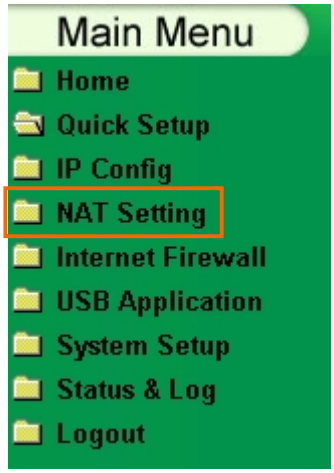
1. **Enable the DDNS Client?**
   Select **Yes** or **No** to enable or disable the DDNS Client.
2. **Server:**
   Select **DynDNS.org** or **TWNIC** embedded in DN-11007-N. You also can click **Free Trial** behind this field to link up a free trial address.
3. **User Name or E-mail Address:**
   User Name or **E-mail Address** is used as an identity to login Dynamic-DNS or TWNIC service.
4. **Password or DDNS key:**
   Password or **DDNS Key** is applied to login Dynamic-DNS or TWNIC service.
5. **Host Name:**
   Input your **Host Name** you had registered from Dynamic-DNS website.
6. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



※ ***Notice:***

For more information, please refer to User's Manual Chapter 4 DDNS Service.

3.4 NAT Setting



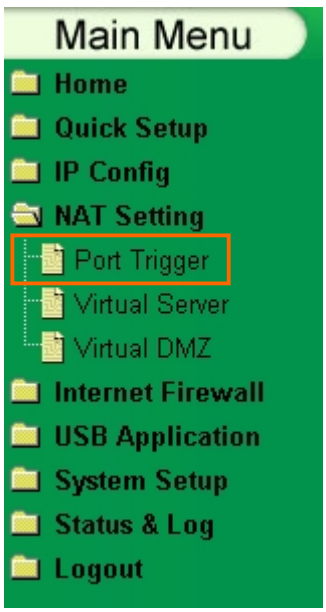
NAT Setting

It contains three functional items under NAT Setting, such as **Port Trigger**, **Virtual Server** and **Virtual DMZ**. Follow the instructions to configure your settings.

※ Tips are given when you move your cursor over each item.

3.4.1 Port Trigger

Application-triggered port forwarding opens a port only when a program needs to use it. Example programs include Internet gaming, video conferencing, and Internet telephone. Although many Internet programs will work through a firewall without any special configuration, programs that use one port to send information and another to receive information can be set up here. Please follow the steps.



Select **Port Trigger** in the **NAT Setting** menu.

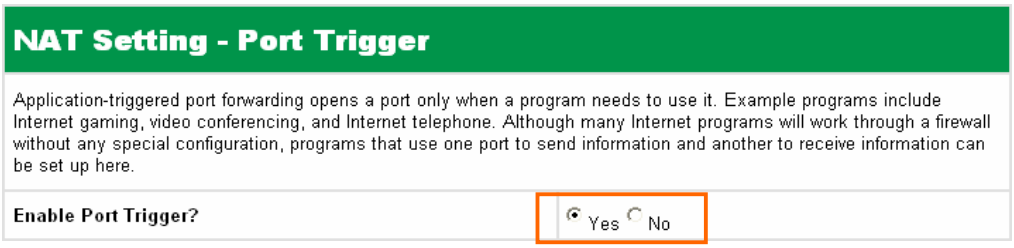
Follow the steps below to enter the Port Trigger page to configure the settings you want.

※ Tips are given when you move your cursor over each item.

【Step1】

This is the outgoing (outbound) port number for a particular application.

Select **Yes** to enable Port Trigger if you need to use Port Trigger special application.



※Notice: Only a LAN client can use a particular special application at a time.

The range of the trigger ports is from 0 to 65535.

【Step2】

1. **Popular Applications**

   Select a service port. Then, click **Add**. If there is no one you can choose. Define yourself and follow the next steps.

2. **Trigger Ports**

   Input outgoing (outbound) trigger port.

3. **Incoming Ports**

   Enter the incoming (inbound) port or port range for this particular of application (e.g. 2300-2400, 47624)

4. **Protocol**

   Select the inbound port protocol type: **TCP**, **UDP,** or **BOTH**.

5. **Description**

   Description for recording what this rule is used for.

6. **Add**

   Input data into first row of table, then press **Add** to insert it. System will remind you if the table is full or required fields are not filled ok.

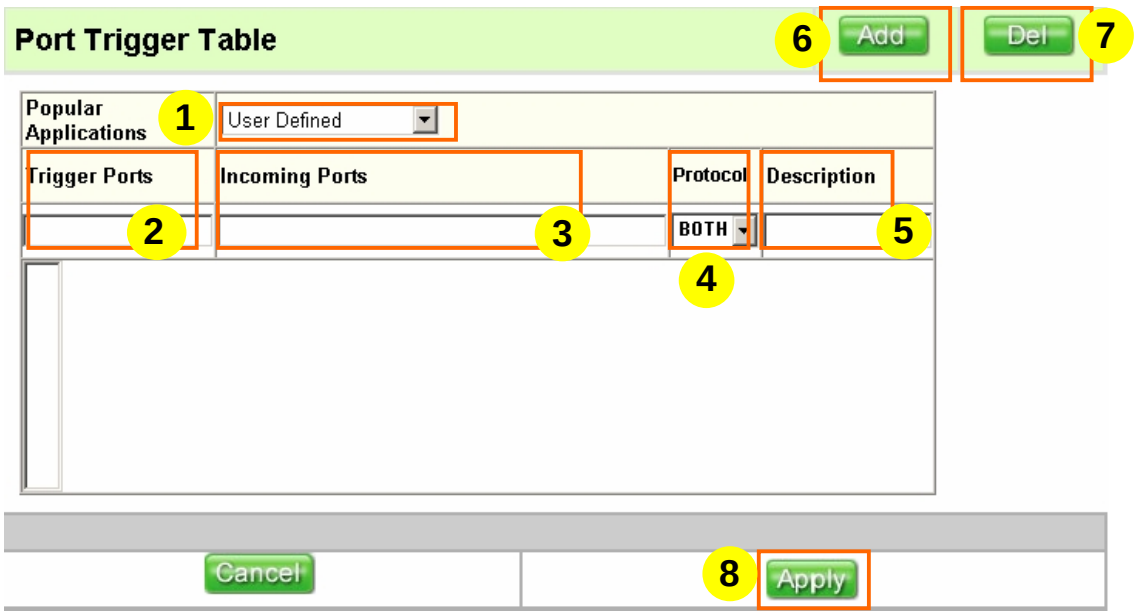
   Select one entry in table, or press **Ctrl** and select multiple entries in tables, then press

7. **Del**

   Del means to delete them.

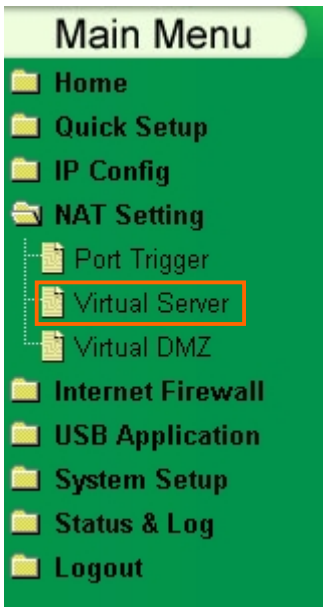
8. **Apply**

   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



3.4.2 Virtual Server

DN-11007-N has built-in firewall function, which makes all hosts behind DN-11007-N are invisible to the outside. If you would like to set up servers, such as web server or mail server. Follow the steps.

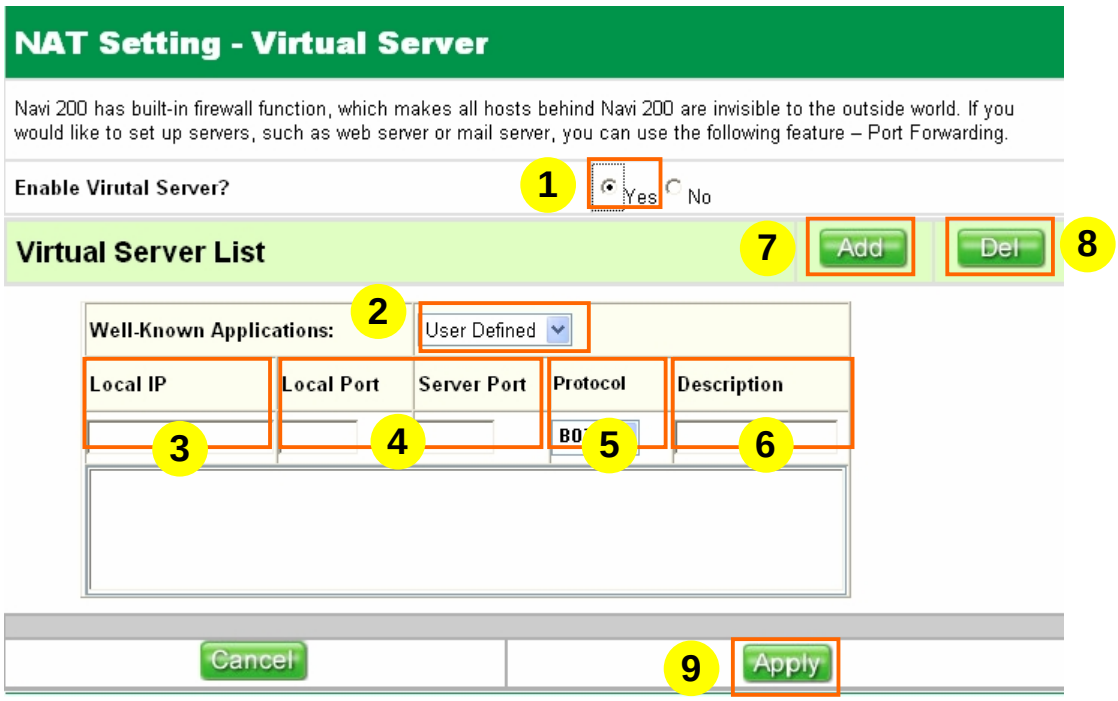


Select **Virtual Server** in the **NAT Setting** menu.
Follow the instructions to enter the Virtual Server page to configure the settings you want.
※ Tips are given when you move your cursor over each item.

【Steps】

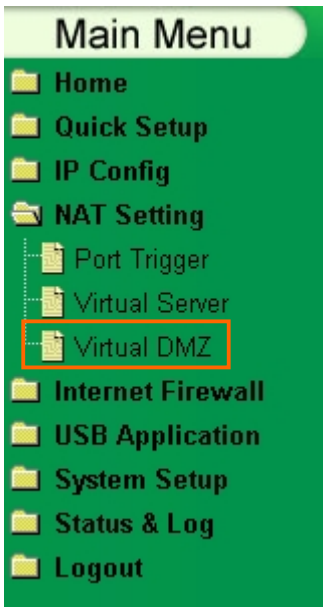
To make services, like WWW, FTP, provided by a server in your local network accessible for outside users, you should specify a local IP address to the server. Then, add the IP address and network protocol type, port number, and name of the service in the following list. Based on the list, the gateway will forward service request from outside users to the corresponding local server.

1. **Enable Virtual Server?**
   Select **Yes** to enable Virtual Server, otherwise, please ignore it.
2. **Well-Known Applications:**
   Please select one of Well-Known Applications. The Information of Local Port, Server Port, Protocol and Description will be shown automatically. If there is no one you can choose in the item of Well-Known Applications. Define yourself and follow the next steps.
3. **Local IP**
   Input the local IP.
4. **Local Port and Server Port**
   Input the Local and Server Ports you knew.
5. **Protocol**
   Give your virtual server a protocol you knew, or if you are not sure, adjust it in a BOTH position.
6. **Description**
   Description for recording what this rule is used for.
7. **Add**
   Input data into first row of table, then press **Add** to insert it. System will remind you if the table is full or required fields are not filled ok.
8. **Del**
   Select one entry in table, or press **Ctrl** and select multiple entries in tables, then press **Del** to delete them.
9. **Apply**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**.



3.4.3 Virtual DMZ

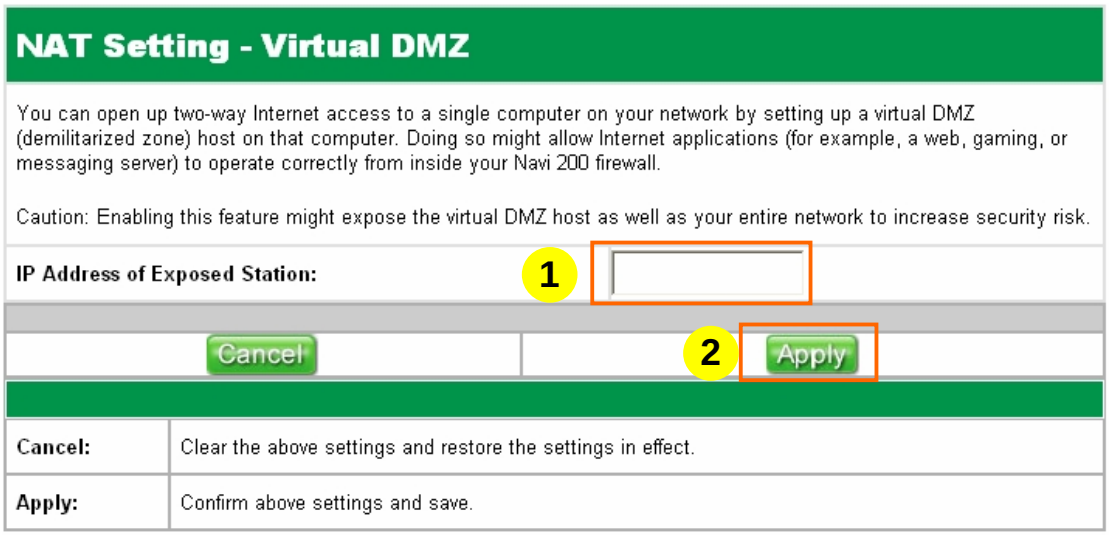
You can open up two-way Internet access to a single computer on your network by setting up a virtual DMZ (demilitarized zone) host on that computer. Doing so might allow Internet applications (for example, a web, gaming, or messaging server) to operate correctly from inside your DN-11007-N firewall. Follow the steps. (Caution: Enabling this function might expose the virtual DMZ host as well as your entire network to increase security risk.)



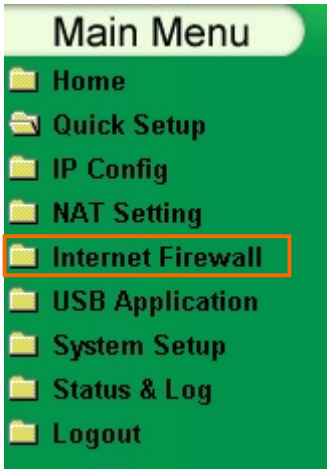
Select **Virtual DMZ** in the **NAT Setting** menu.
Follow the instructions to enter the Virtual Server page to configure the settings you want.
※ Tips are given when you move your cursor over each item.

【Steps】

1. **IP Address of Exposed Station:**
   Input the **IP address** of the computer that you want to expose to the Internet.
2. **Apply & Cancel**
   Click **Apply** to complete NAT Setting. If you want to clean the settings, please click **Cancel**.



3.5 Internet Firewall



Internet Firewall

Internet Firewall contains three functional items, includes **WAN & LAN Filer**, **Mac Address Filter** and **URL Filter**. Follow the instructions to configure your settings.

※ Tips are given when you move your cursor over each item.

3.5.1 WAN & LAN Filter

You can use the firewall to control certain communications, i.e. blocking malicious transmissions of users in the Internet. Caution: when you disable the firewall, you will make your network more vulnerable. Follow the steps.

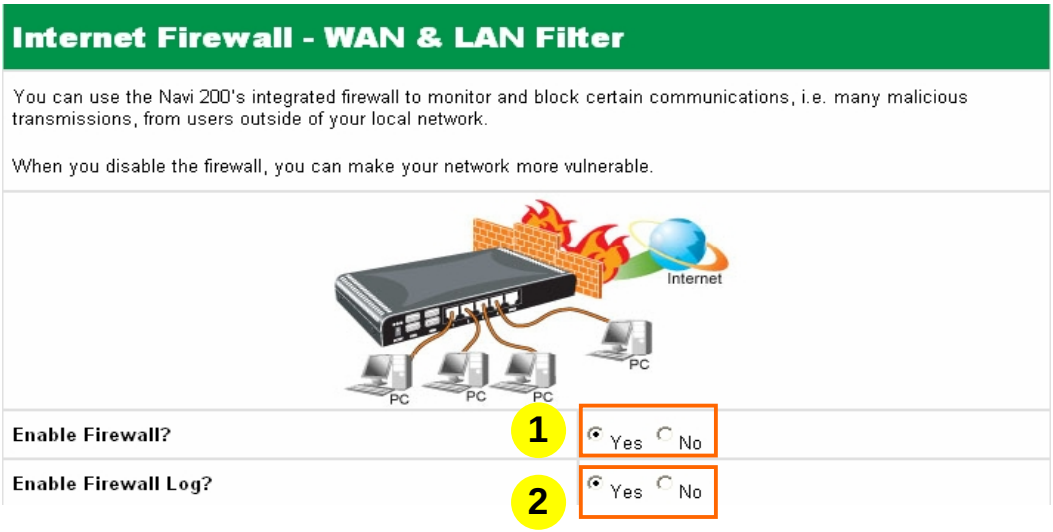
Select **WAN & LAN Filter** in the **Internet Firewall** menu. Follow the instructions to enter the WAN & LAN Filter page to configure the settings you want.

※Tips are given when you move your cursor over each item.

【Step1】

Only enable the following two items, Internet firewall will work to block all the unauthorized accesses from outside.

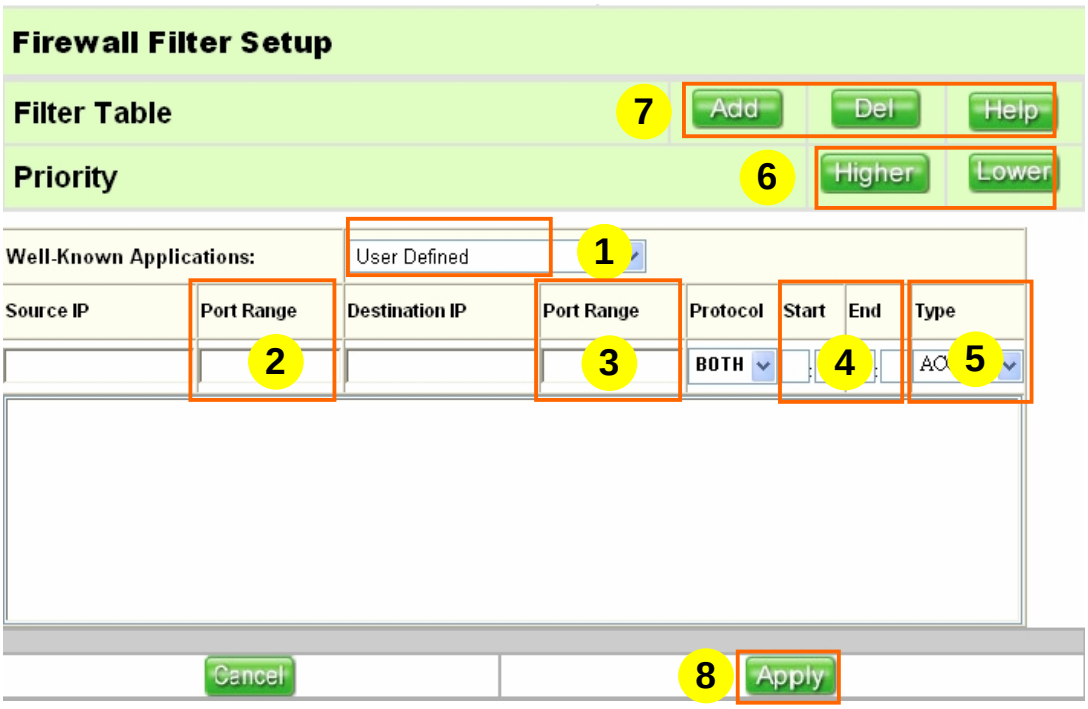
1. **Enable Firewall?**
   Select **Yes** to enable the firewall, it can help you to reduce the risk of outside unauthorized access.
2. **Enable Firewall Log?**
   Select **Yes** to enable the firewall Log. As you enable this function, your DN-11007-N system will be logged accordingly when the packets dropped.



【Step2】

For the advanced settings of Internet Firewall, please follow the steps below.

1. **Well-Known Applications:**
   You can select any pre-configured service from the drop-down list of Well-Known Applications. The pre-configured services include WWW, ICQ, REAL PLAYER/ QuickTime, Telnet, FTP, MSN Messenger, MIRC, NET Meeting (1)~(4). If you select one of them, a port number will appear in the Destination Port Range at the same time. If there is no one you can select, please follow the next steps to define yourself.
2. **Port Range**
   Input the Source IP, Port Range.
3. **Port Range**
   Input the Destination IP and Port Range.
4. **Time Period**
   Set a period of time to accept or drop user access.
5. **Type**
   Defining your rule will **drop** or **accept** the packet.
6. **Priority**
   Specify one of the settings on the list table, and click **Higher**. The one will be more prior than the low one. By contrary, click **Lower** to level down the priority.
7. **Add, Del & Help**
   Click **Add** to list your settings on the list. On the contrary, click **Del** to erase the settings on the list. If you don't know how to do, click **Help.**
8. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, such as Enable Firewall, Enable Firewall Log, except the information on the list, please click **Cancel**. All being used functional buttons, includes **Add**, **Del**, **Higher**, **Lower** and **Cancel** can take effect after clicking **Apply**.



3.5.2 MAC Address Filter

You can control over your LAN ports easily. It means that it will enhance your internal network security through the MAC address settings. Actually, managers can allow or disallow one or more LAN ports they assigned passing DN-11007-N during a specific time.

【Step1】

1. DHCP Leases

(Before setting the MAC Address Filter, you should follow the steps to know if MAC addresses have been linked.)

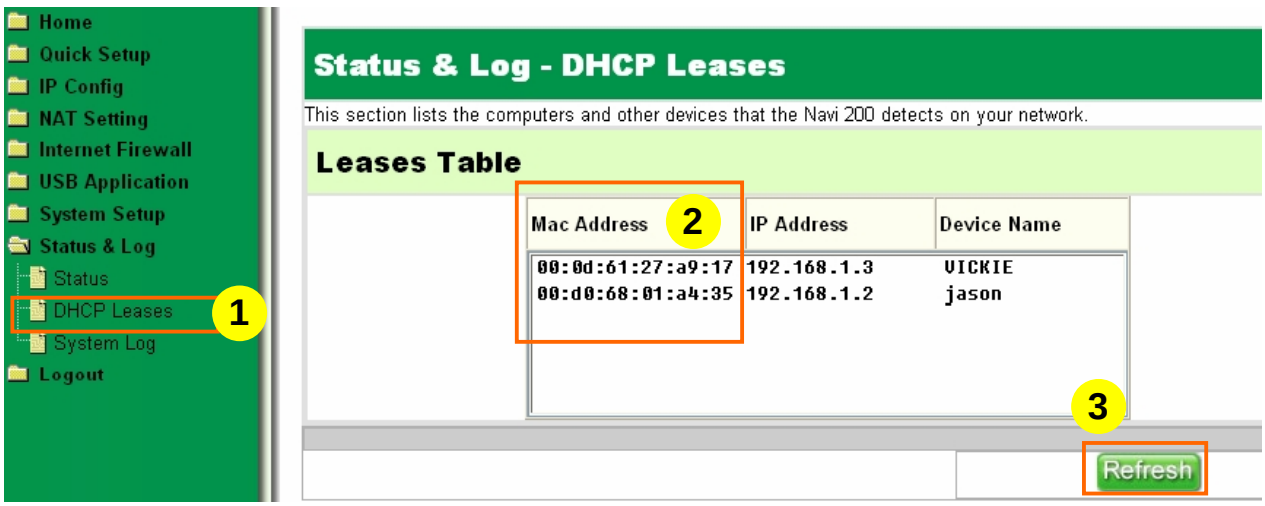
Click **DHCP Leases** in the **Status & Log**.

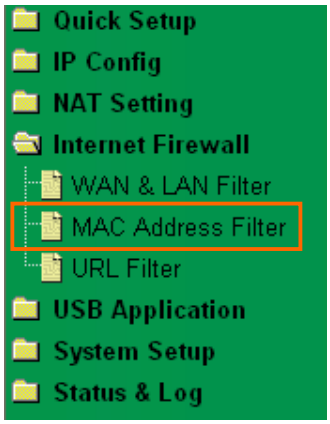
2. Mac Address

The Mac Addresses will be shown in the Leases Table. Please note down the Mac addresses you want to drop or accept

3. Refresh

Click **Refresh** to renew the information on the Leases Table.





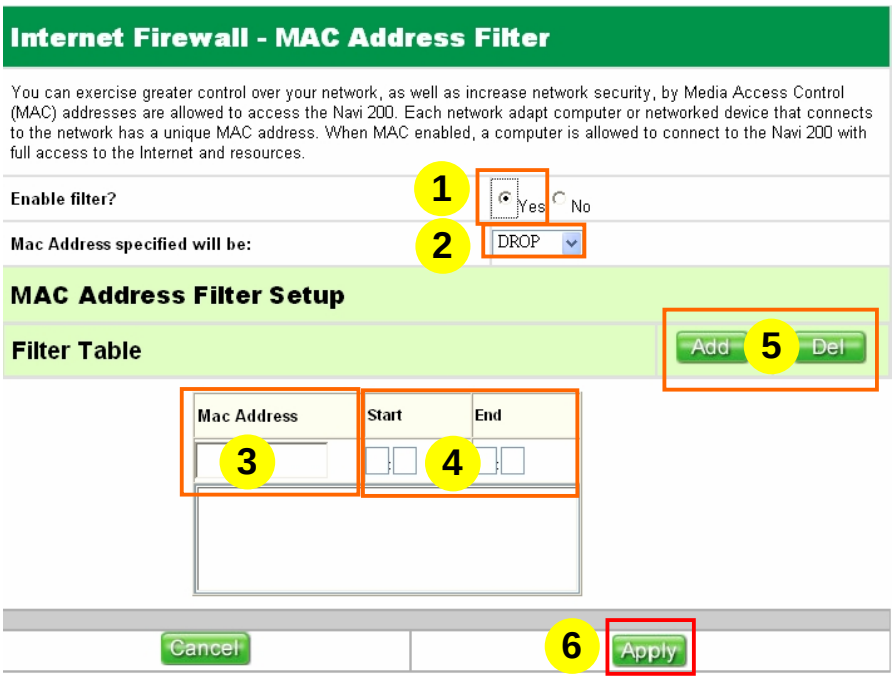
【Step2】

Select **MAC Address Filter** in the **Internet Firewall** menu. Follow the instructions to enter the MAC Address Filter page to configure the settings you want.

※Tips are given when you move your cursor over each item.

【Step3】

1. **Enable filter?**
   Select **Yes** to enable filter function.
2. **Mac Address specified will be:**
   Define the Mac Address you will assign in **drop** or **accept** position.
3. **Mac Address**
   Input the Mac address at a time.
4. **Time Period**
   Set a period of time or skip this area.
5. **Add & Del**
   Click **Add** to list your settings. (If you don't satisfy with your settings, select the address you have added. Then, click **Del**.)
6. **Apply & Cancel**
   Click **Apply** to save your settings. If you want to clean the settings you have set, except the information on the list, click **Cancel**. All being used functional buttons, includes **Add**, **Del**, and **Cancel** can take effect after clicking **Apply**.



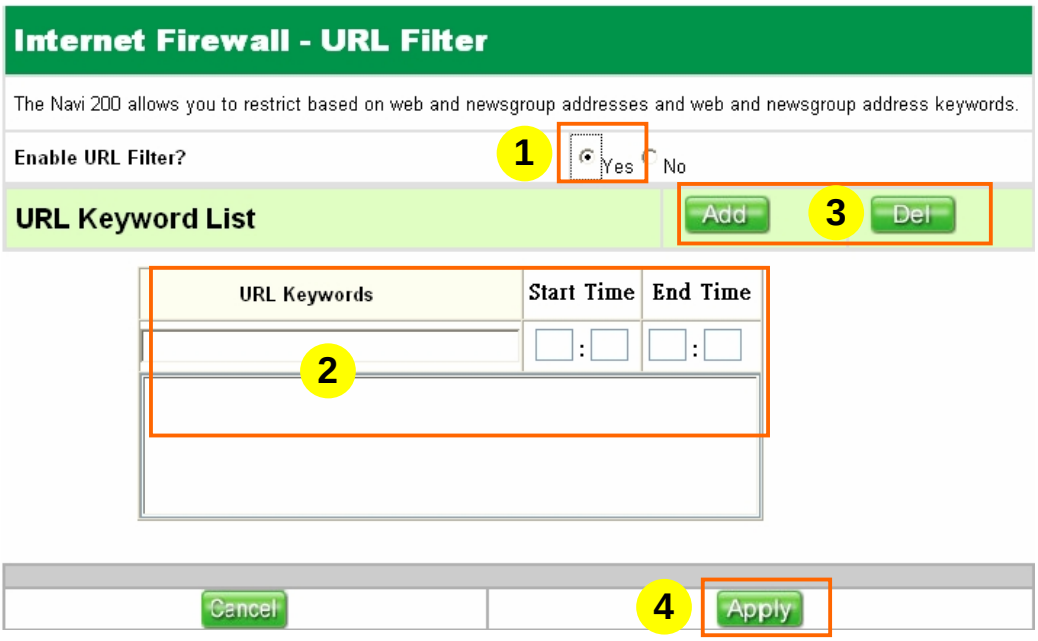
3.5.3 URL Filter

As long as you give the keyword and timing in the URL Filter, your LAN ports clients can't get into the website in the certain period of time with the same keyword among the website address string.

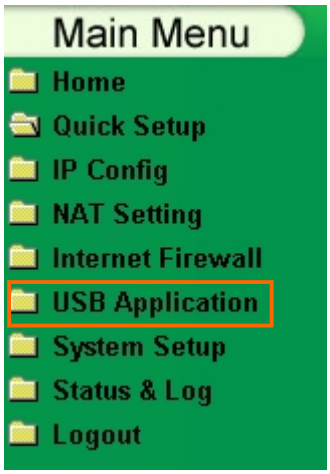
Select **URL Filter** in the **Internet Firewall** menu.
Follow the instructions to enter the URL Filter page.
※ Tips are given when you move your cursor over each item.

【Steps】

1. **Enable URL Filter?**
   Select **Yes** to enable URL filter function.
2. **URL Keywords & Time Period**
   Input the **keyword** that you want to block and **period of time** in the blank fields.
3. **Add & Del**
   Click **Add** to list an URL Keywords on the table. Click **Del** to erase one you like on the list.
4. **Apply & Cancel**
   Click **Apply** to save the settings. Click **Cancel** to clean the settings. All being used functional buttons, includes **Add**, **Del**, and **Cancel** can take effect after clicking **Apply**.



3.6 USB Application



USB Application

The USB application contains three functional items, **FTP Server**, **Web Camera** and **Print Server**. Through the FTP Server settings, clients can share data from both WAN and LAN, and through the Web Camera settings, users can monitor office or home security remotely. Moreover, through the Printer settings, users can share the printer from both WAN and LAN.

3.6.1 FTP Server

WARNING: Before connecting with your USB HD to DN-11007-N, please make sure that DN-11007-N is in Power-Off condition.

Select **FTP Server** in the **USB Application** menu. Follow the instructions to enter the FTP Server page and finish the settings to share FTP Server from both WAN and LAN.

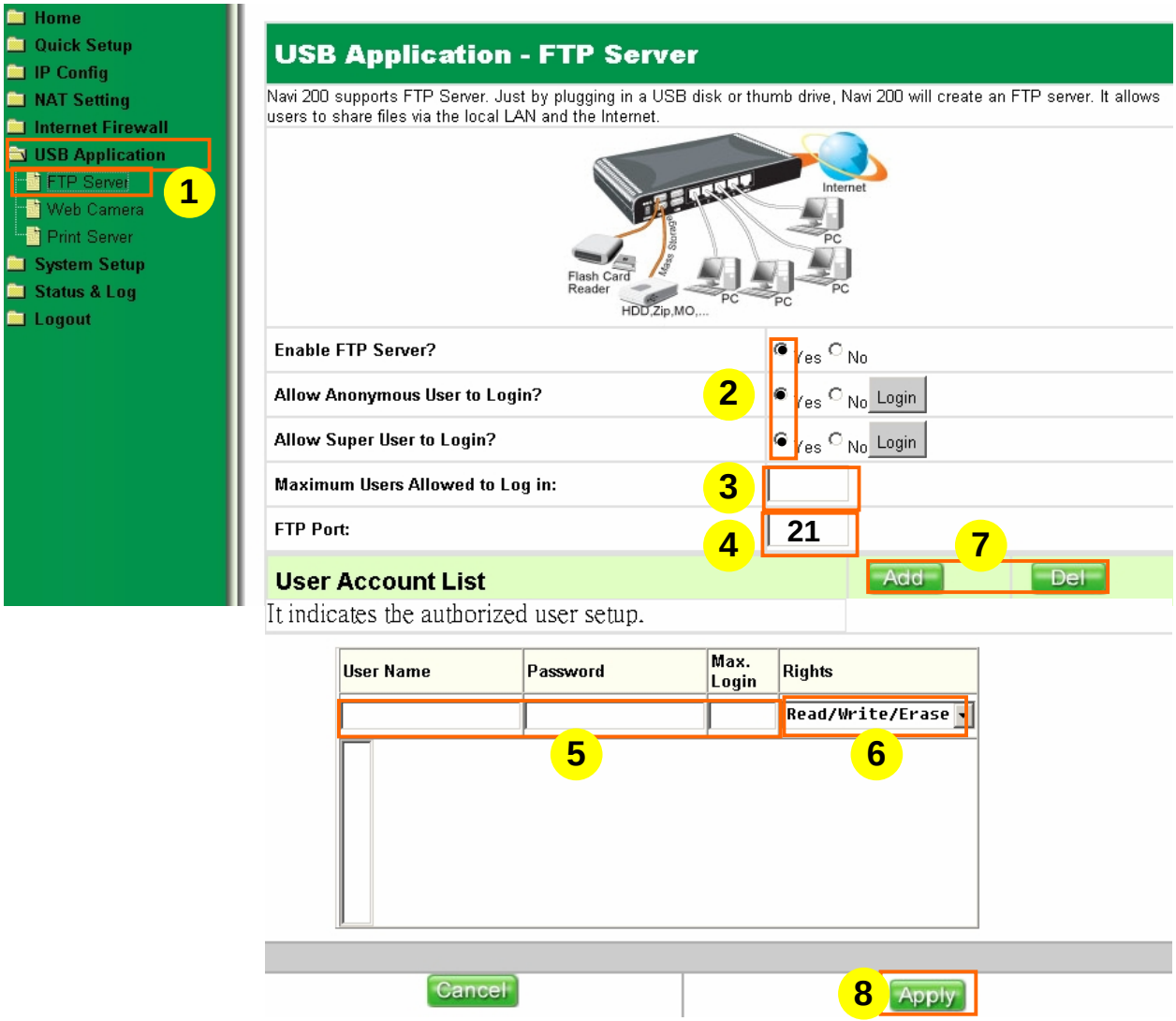
※ ***Tips are given when you move your cursor over each item.***

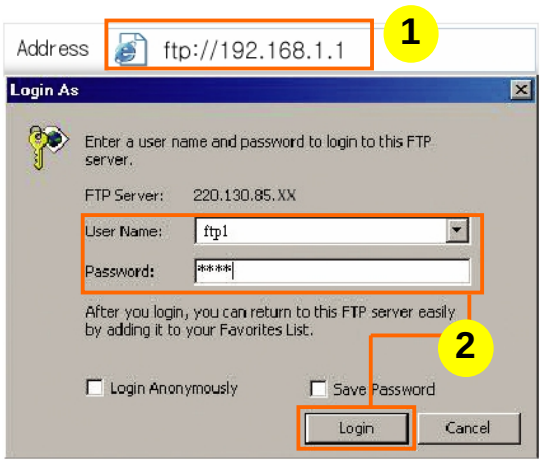
3.6.1.1 Set FTP User Accounts Up

Please follow these steps to complete DN-11007-N FTP settings.

【Step1】

1. **USB Application**
   Click **FTP Server** in the **USB Application** menu. The screen of FTP Server will appear. Please follow the instructions next to configure this function.
2. **Enable FTP Server, Anonymous & Super User**
   Select **Yes** to enable FTP Server. If you enable FTP Server and allow anonymous or super user logging in, please complete the following steps. If you disable FTP Server, please ignore the following steps.
3. **Maximum Users Allowed to Log in:**
   Give the maximum log in user number (at most 12 users can access FTP Server at the same time.)
4. **FTP Port:**
   The FTP Port default value is **21**, but it can be changed as long as it does not conflict with other applications.
5. **User Name, Password & Max. Login**
   Input a user name, a password and a number of maximum access clients in the blank fields at the same time.
6. **Rights**
   Give the user specific rights such as read, write and erase.
7. **Add & Del**
   Click **Add** to save the user name, password and number of client access in the User Account Table. Click **Del** to erase one datum in the list table.
8. **Apply**
   Click **Apply** to complete DN-11007-N's FTP Setup. If you want to clean the settings, please click **Cancel**. All being used functional buttons, includes **Add**, **Del** and **Cancel** can take effect after clicking **Apply**.





【Step2】

1. Address

Open Internet browser and input **ftp://192.168.1.1** in the web address field, then press **Enter**.

2. User Name, Password & Login

Input User Name and Password you have set before, then click **Login**. The data folders will appear.

【Step3】

1. **IP Config & Miscellaneous**

   Select **Miscellaneous** in the **IP Config** menu.

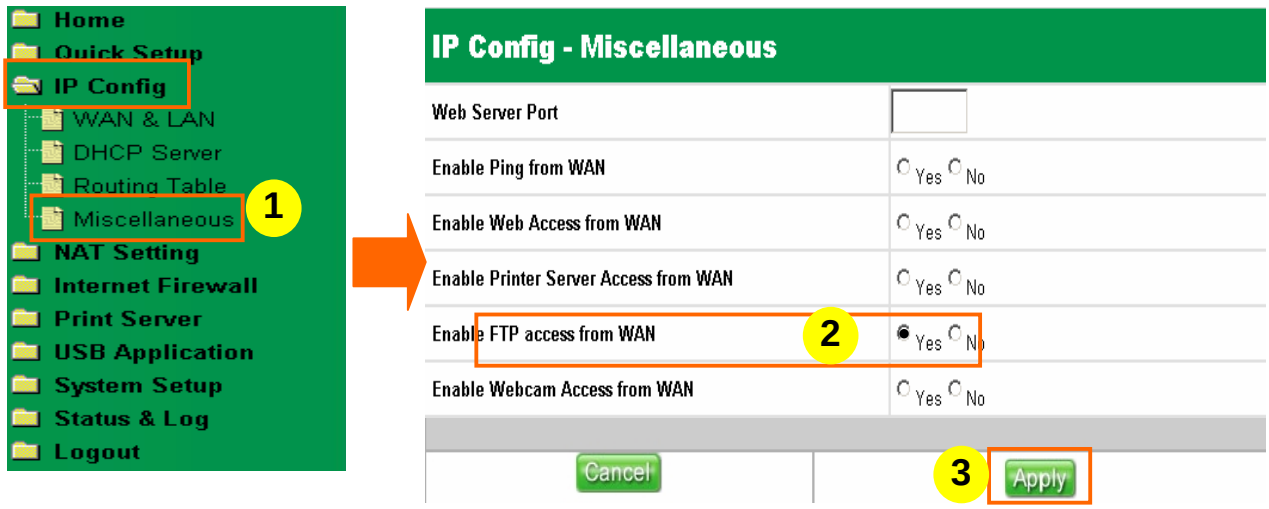
2. **Enable FTP access from WAN**

   Select **Yes** to enable FTP Access from WAN.

3. **Apply & Cancel**

   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.

※Notice: If you select Yes, users can access your FTP Server from WAN; On the contrary, users only can access your FTP Server from LAN.



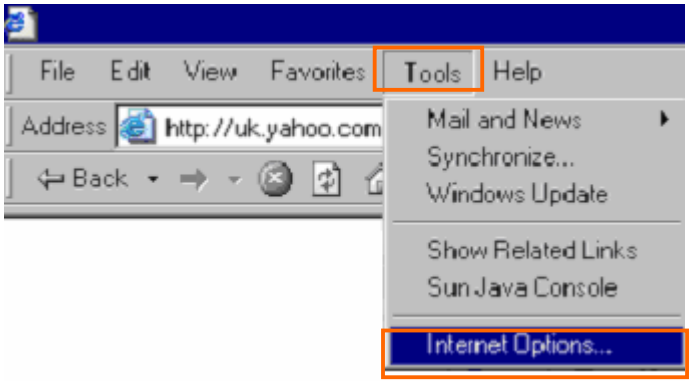
3.6.2 Web Camera

WARNING: Before connecting with your USB Web Camera to DN-11007-N, please make sure that DN-11007-N is in Power-Off condition.

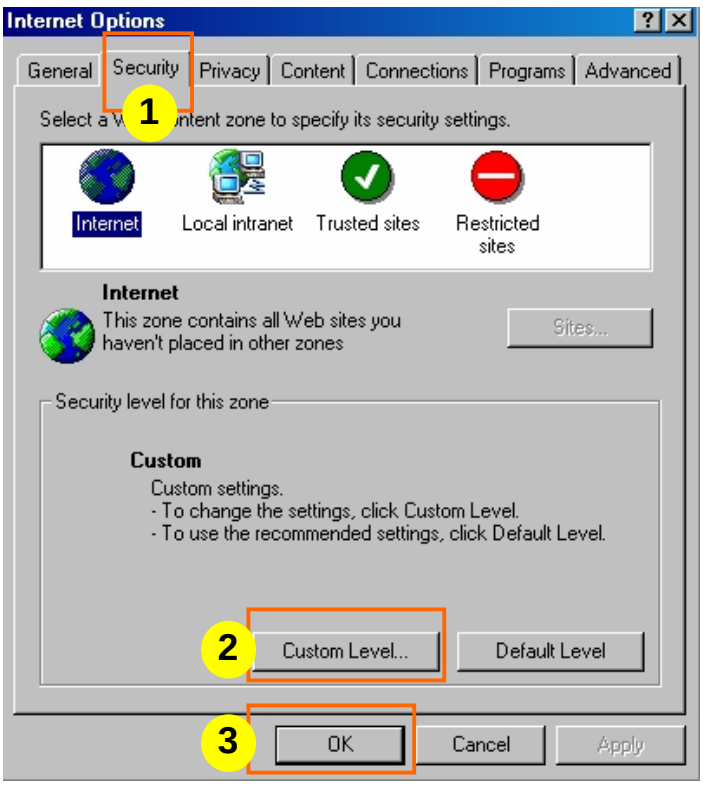
Select **Web Camera** in the **USB Application** menu. Follow the instructions to enter the Web Camera page and finish the settings to use Web Camera from both WAN and LAN.

※ Tips are given when you move your cursor over each item.

3.6.2.1 IE Browser's Settings

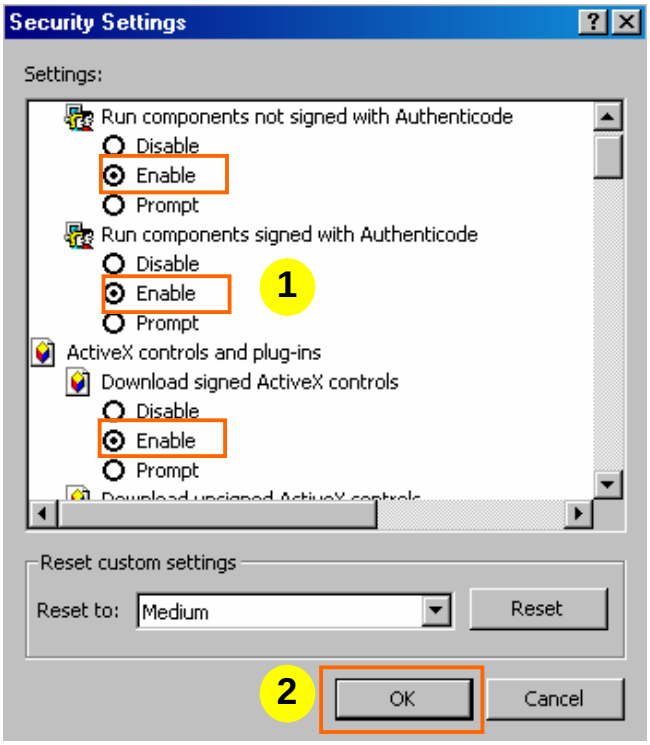


【Step1】
Open **Internet browser** and click **Tools** tab and **Internet Options…**.



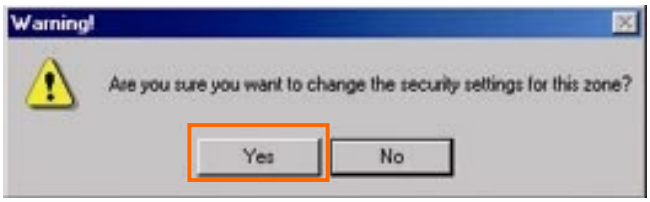
【Step2】

1. Click **Security**.
2. Click **Custom Level…**.
3. Click **OK**.



【Step3】

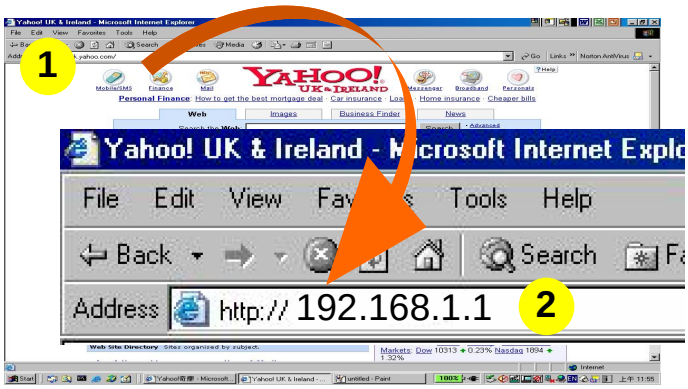
1. Select **Enable** in the items.
2. Click **OK**.



【Step4】

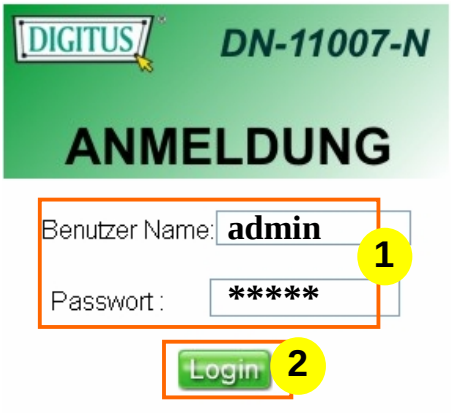
Click **Yes.**

3.6.2.2 Configure and Use Web Camera



【Step1】

1. Open **Internet browser**.
2. Input **192.168.1.1** in the address field.



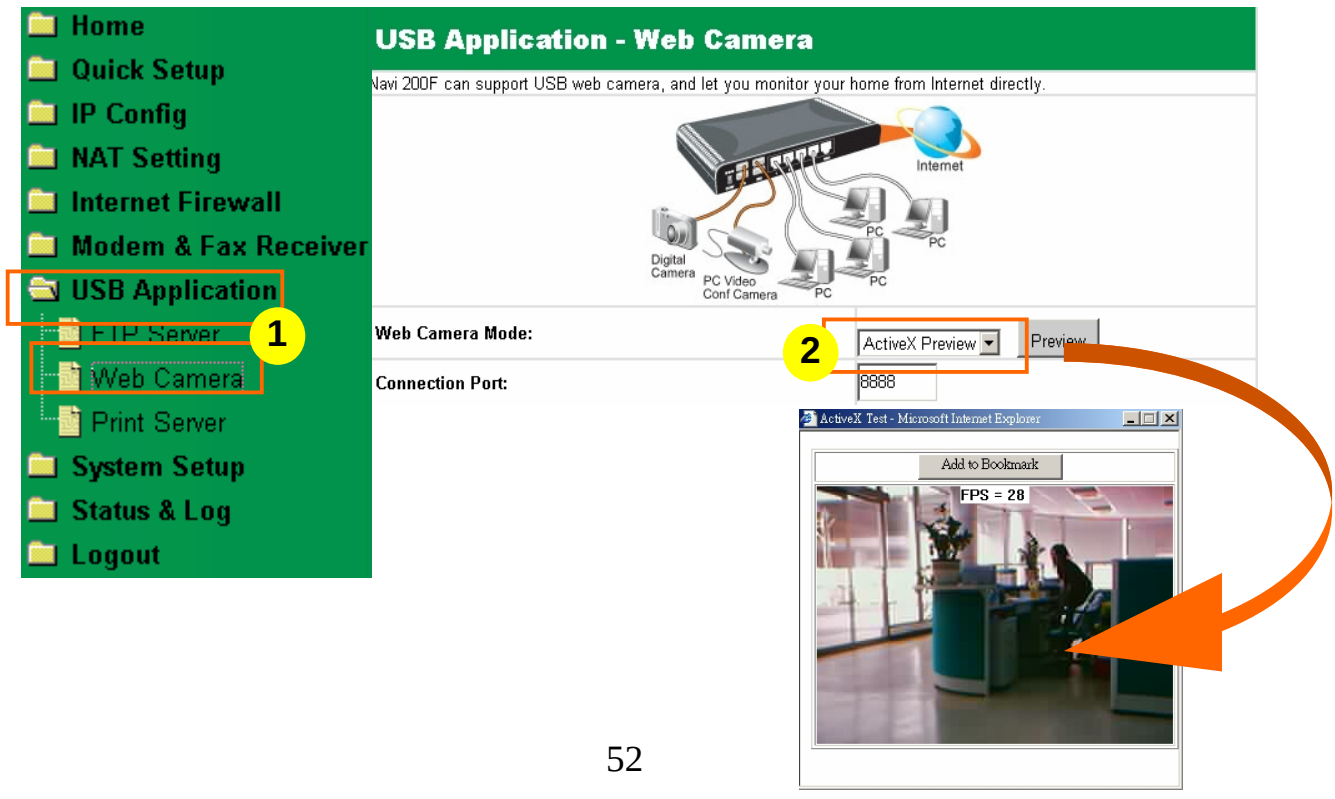
【Step2】

1. Input **admin** in both **User Name** and **Password** fields
2. Click **Login**.

【Step3-1】**Using Active X mode to preview**

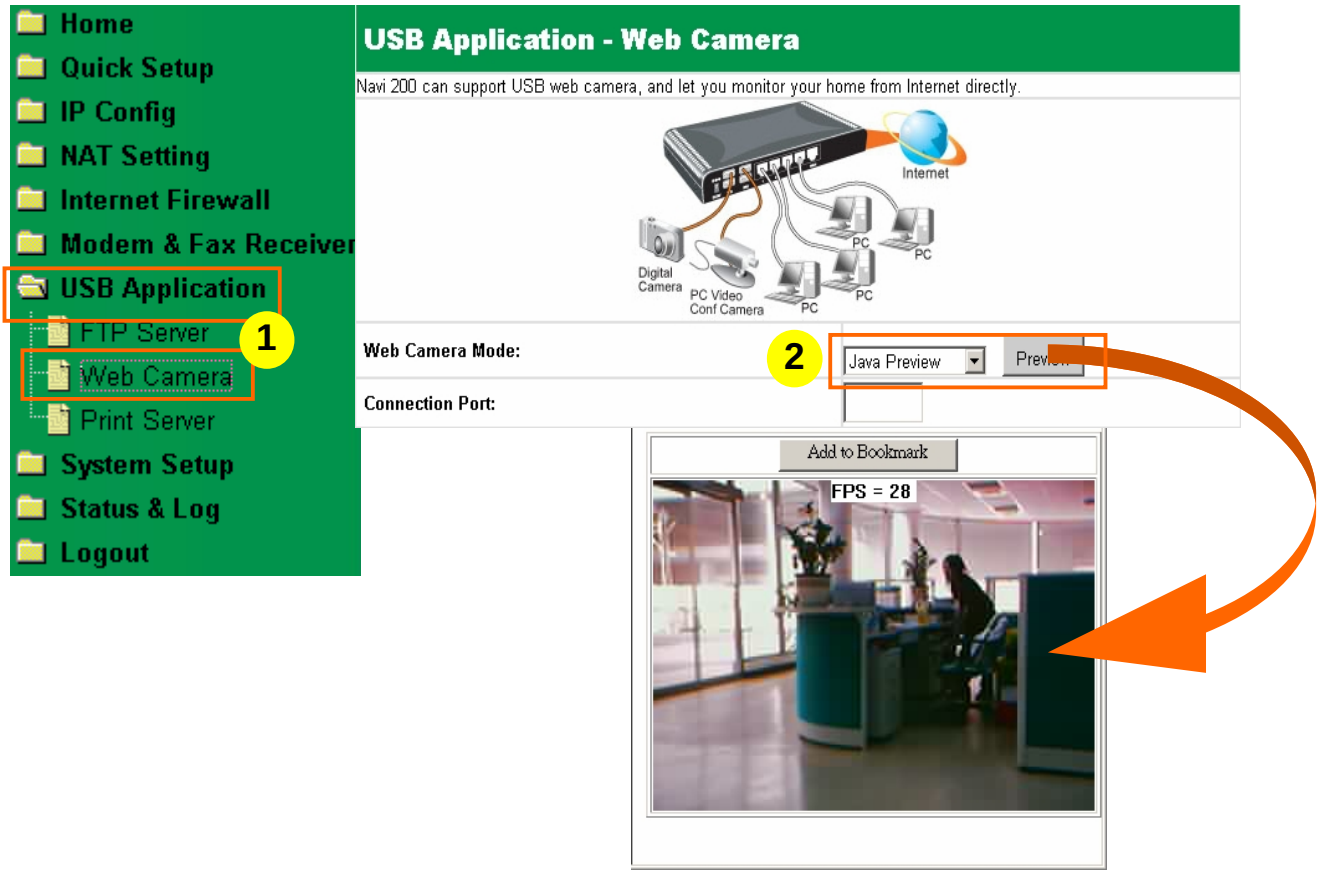
1. **USB Application & Web Camera**
   Click **Web Camera** in the **USB Application** menu.
2. **Web Camera Mode:**
   Select **Active X** and click **Preview**. The following video screen will appear immediately.
   After finishing the settings above, you can access the video screen directly follow the steps.

1. **From outside (WAN):**
   Input DN-11007-N's **WAN IP/webcam.htm** in the address field, when you access from outside.
2. **From your local network (LAN):**
   Input DN-11007-N's **LAN IP/webcam.htm** in the address field, when you access from your local network (for example, 192.168.1.1/webcam.htm).



【Step3-2】**Using Java mode to preview**

1. **USB Application & Web Camera**
   Click **Web Camera** in the **USB Application** menu.
2. **Web Camera Mode:**
   Select **Java Preview** and click **Preview**. The following video screen will appear immediately.



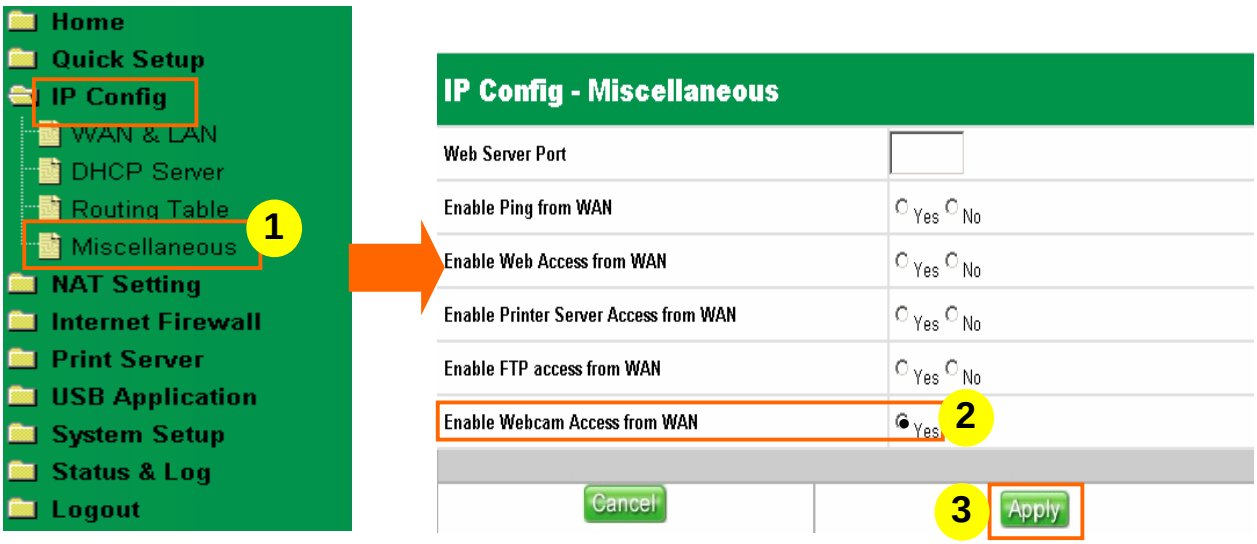
※Notice: If you select JAVA mode preview, please download JAVA software from http://www.java.com/en/download/manual.jsp.

After downloading and installing the Java software, you can access the video screen directly follow the steps.

1. **From outside (WAN):**
   Input DN-11007-N's **WAN IP/showwebcam.htm** in the address field, when you access from outside.
2. **From your local network (LAN):**
   Input DN-11007-N's **LAN IP/showwebcam.htm** in the address field, when you access from your local network (for example, 192.168.1.1/webcam.htm).

【Step4】

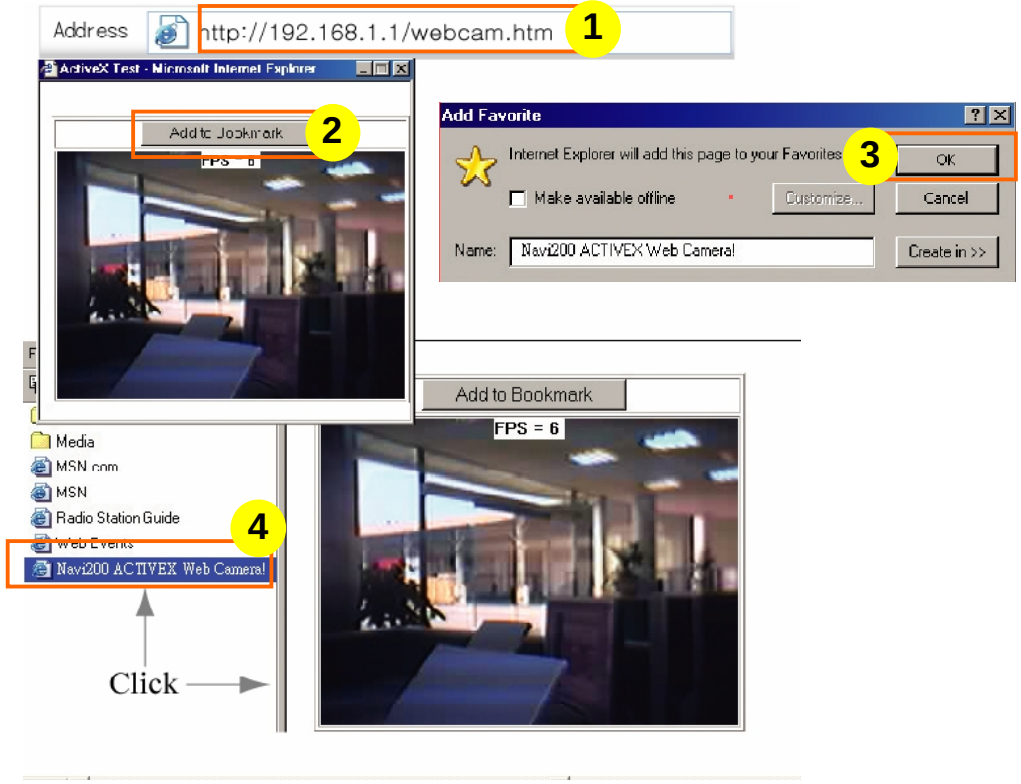
1. **IP Config & Miscellaneous**
   Select **Miscellaneous** in the **IP Config** menu.
2. **Enable Webcam Access from WAN**
   Select **Yes** to enable Webcam Access from WAN.
3. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.



3.6.2.3 Bookmark for Accessing Webcam

Use “Bookmark” function to access your webcam in an easy way. Please follow the instructions below.

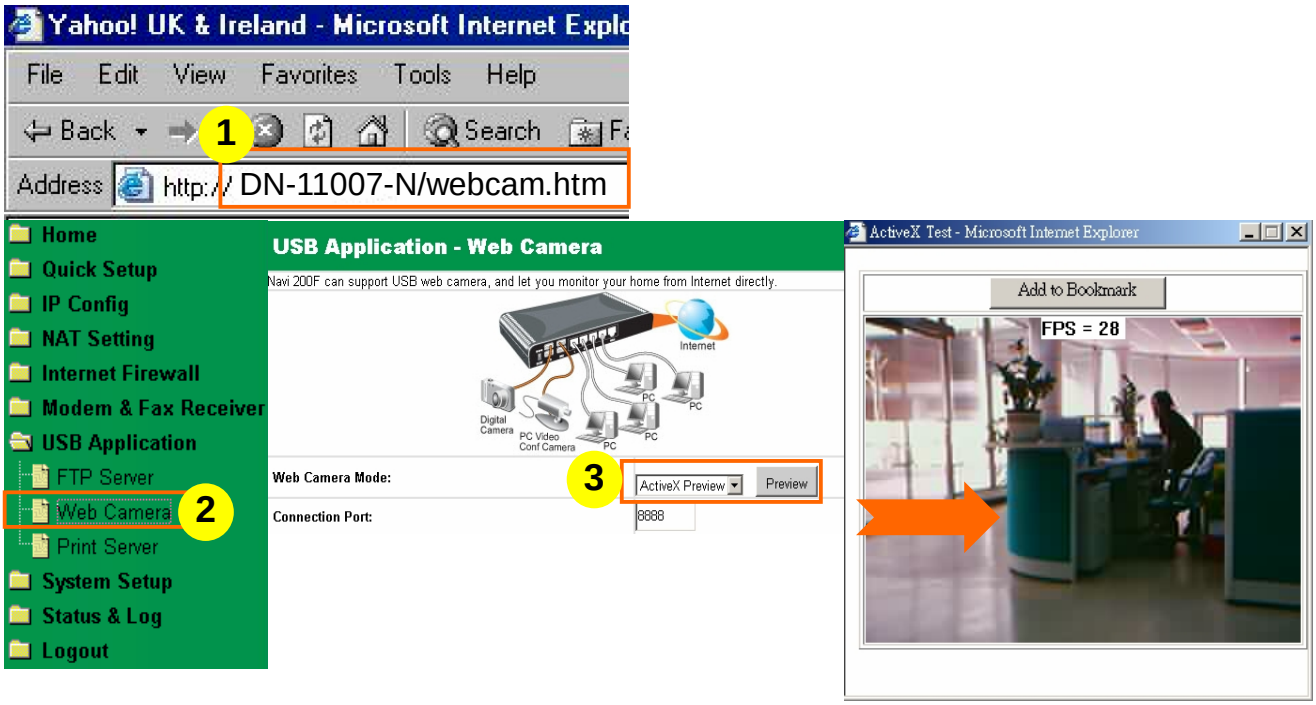
1. **Address**
   Open **Internet browser** and then input **192.168.1.1/webcam.htm**. Then, click **Enter**. The monitor screen will appear immediately.
2. **Bookmark**
   Click **Add to Bookmark**.
3. **Add Favorites**
   Click **OK**.
4. **DN-11007-N ACTIVEX Web Camera**
   Click **DN-11007-N ACTIVEX Web Camera** then the monitor screen will appear.



3.6.2.4 Webcam Application from WAN with DDNS

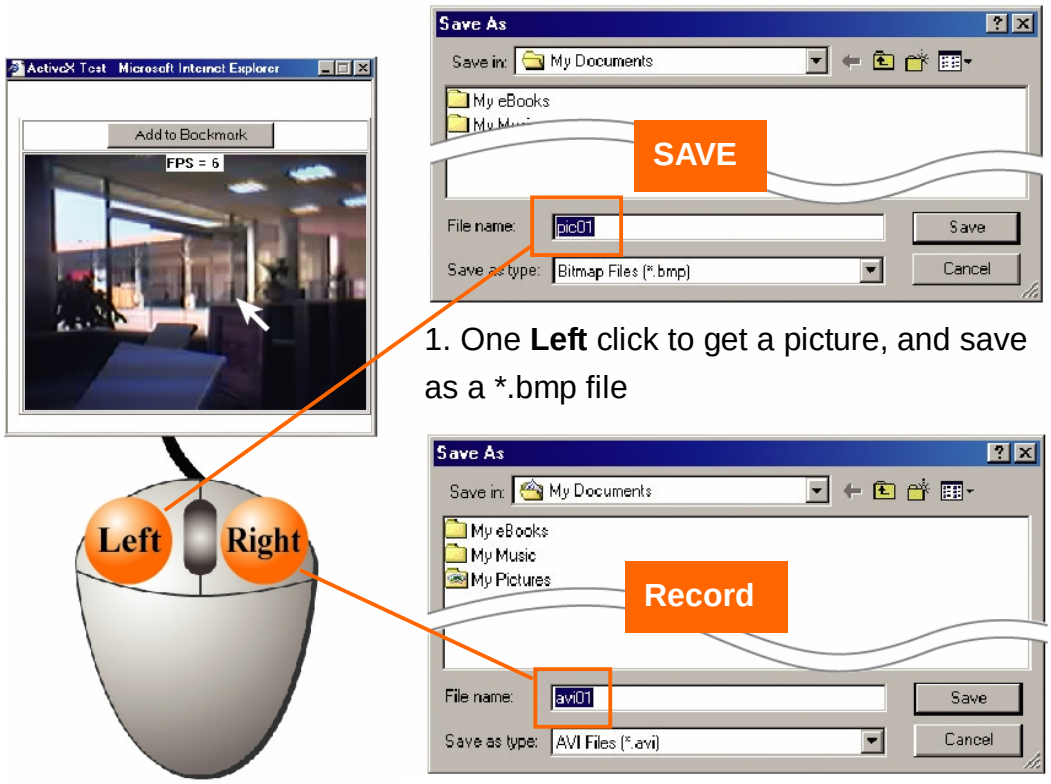
For more DDNS information, please check on Chapter 4 **DDNS Service**.

1. **Open Internet browser**
   Input your **hostname/webcam.htm** from WAN, **DN-11007-N/webcam.htm** for example. You will enter the DN-11007-N settings.
2. **USB Application & Web Camera**
   Click **Web Camera** in the **USB Application** menu.
3. **Web Camera Mode:**
   Select **Active X** and click **Preview** to open webcam.



3.6.2.5 Store Webcam's File

In order to store files, please move your cursor on the active window and click the right or left buttons.

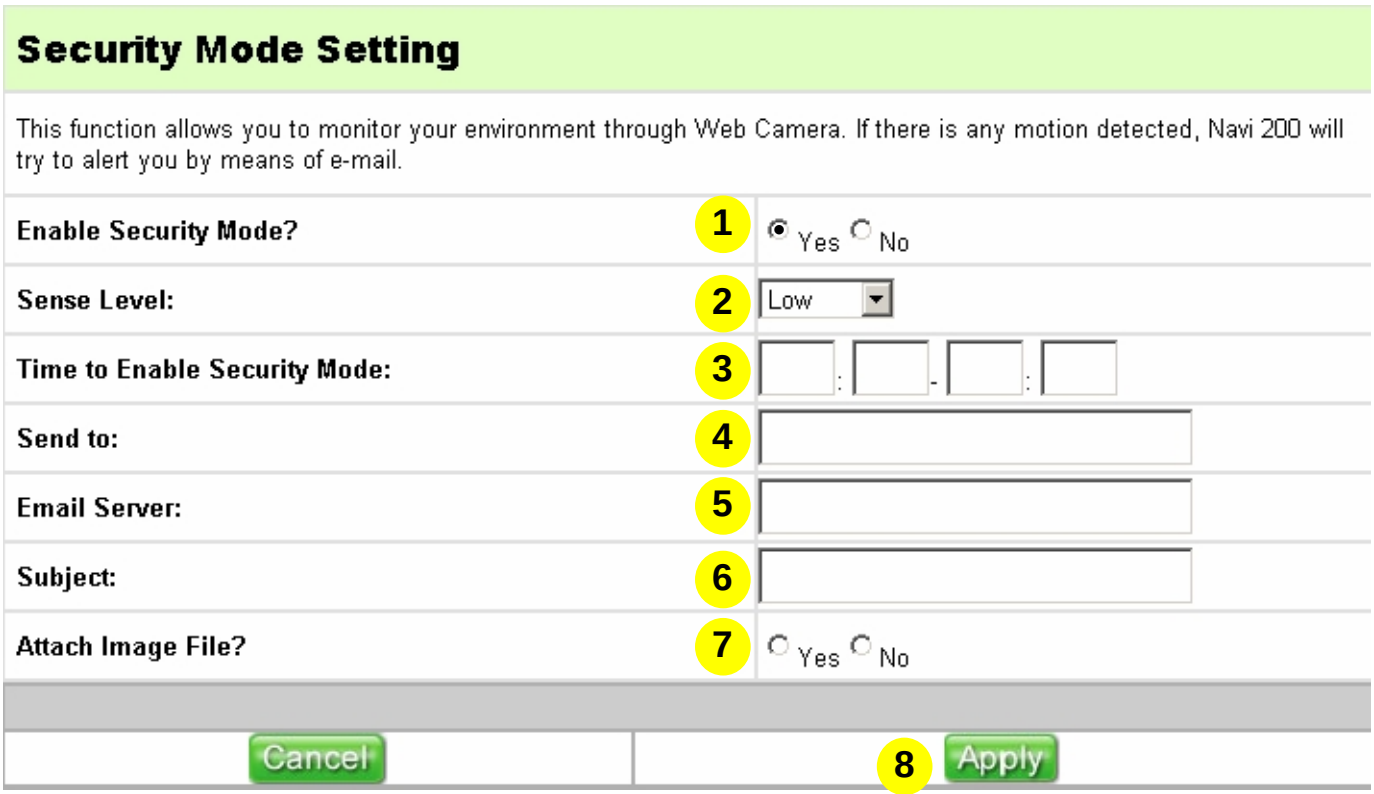


1. One **Left** click to get a picture, and save as a *.bmp file

2. One **Right** click to start recording, and record as a *.avi file. One more click to stop it.

3.6.2.6 Security Mode Settings

1. **Enable Security Mode?**
   If you want to set a time period for your webcam to work, please click **Yes** to enable security mode. If you click **No**, please don't do the following steps.
2. **Sense Level:**
   Give your webcam a sense level, high, medium or low, in order to operate itself automatically, when moving objects pass.
3. **Time to Enable Security Mode:**
   Set a period of time to operate your webcam.
4. **Send to:**
   This field indicates the email address you like the alert email to send to.
5. **Email Server:**
   This field indicates the email server where you like to deliver your email to. If you don't know, we advise you to check with your email service provider.
6. **Subject:**
   When you get warning mails, the field is shown as email subject.
7. **Attach Image File?**
   Select **Yes** to attach an image file to email at a time. Select No, it won't attach.
8. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.



WARNING: Before connecting with your USB Printer to DN-11007-N, please make sure that DN-11007-N is in Power-Off condition.

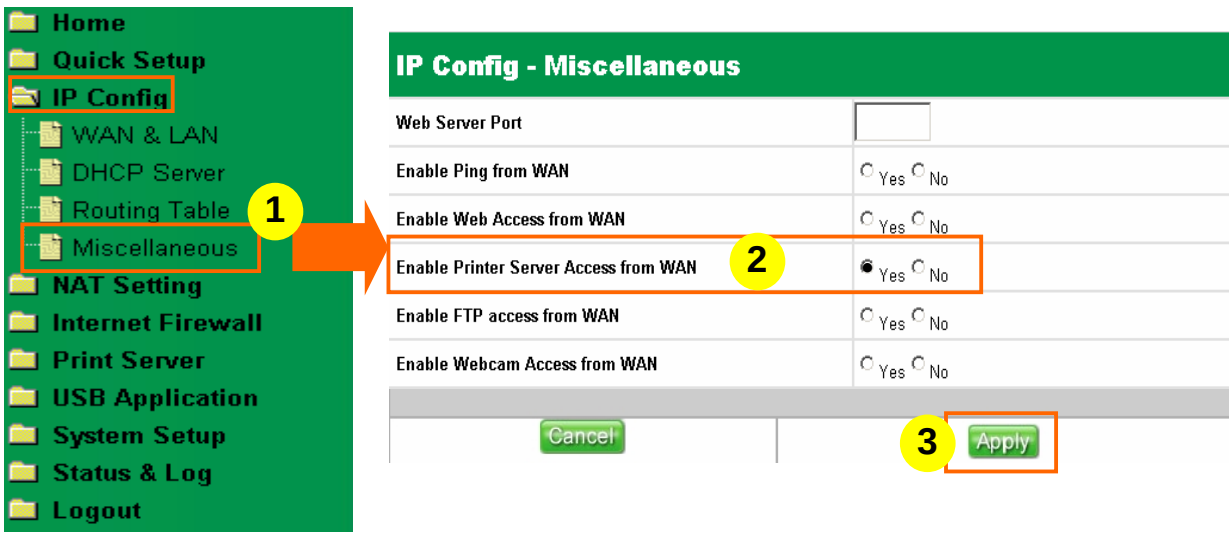
3.6.3 Print Server

Print Server Setup

Select **Print Server** in the **USB Application** menu.
Follow the instructions to enter the Print Server page and finish the settings to share a USB printer from both WAN and LAN.
※ ***Tips are given when you move your cursor over each item.***

1. **IP Config & Miscellaneous**
   Select **Miscellaneous** in the **IP Config** menu.
2. **Enable Webcam Access from WAN**
   Select **Yes** or **No** to enable or disable Printer Server Access from WAN.
3. **Apply & Cancel**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.

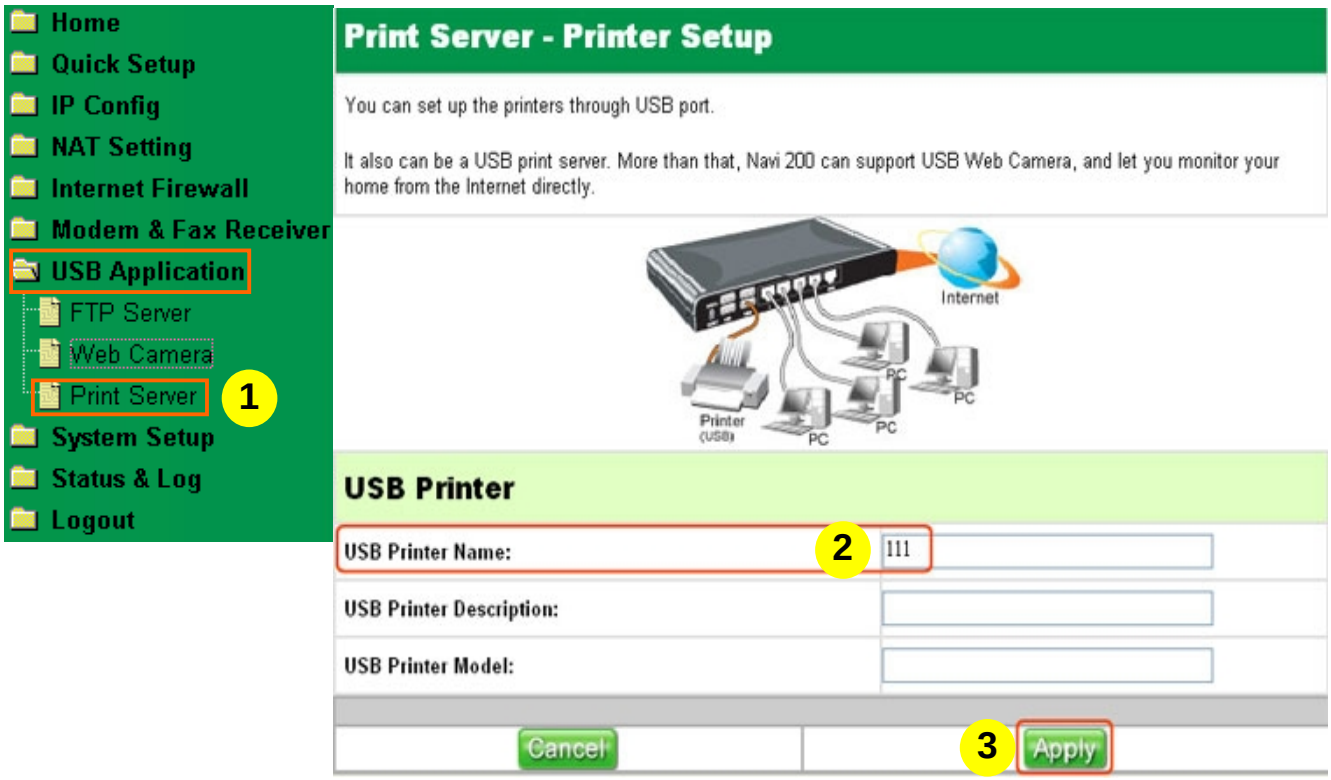
※**Notice:** ***If you select Yes, users can use Printer from WAN; On the contrary, users only can use Printer from LAN.***



3.6.3.1 Share USB printer on your local network

Please follow the steps to complete DN-11007-N printer settings and the printer configuration on Windows platforms.

1. **USB Application & Print Server**
   Click **Print Server** in the **USB Application** menu. The screen of Printer Setup will appear. Please follow the instructions to configure this function.
2. **USB Printer**
   Input the **USB Printer Name** "**111**" for example, **Description** and **Model** in the blank fields.
3. **Apply**
   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.

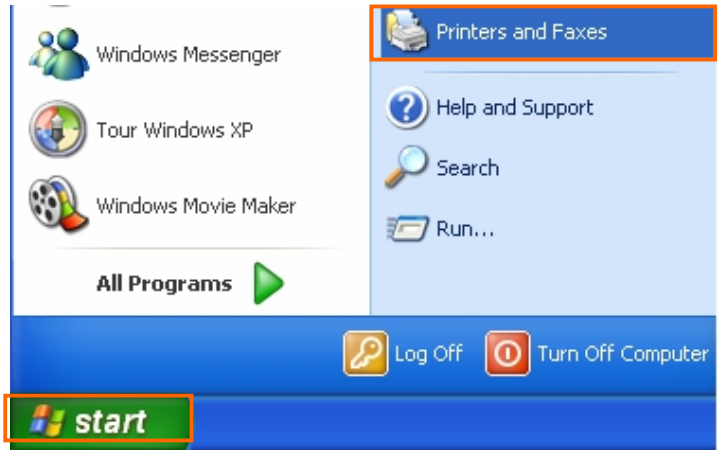


3.6.3.2 The configuration on Windows platforms

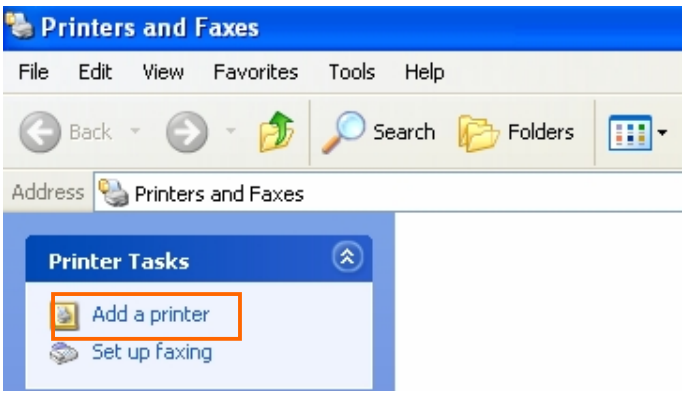
Please follow these steps to complete the printer configuration for Windows platforms.

3.6.3.2.1 For Windows XP

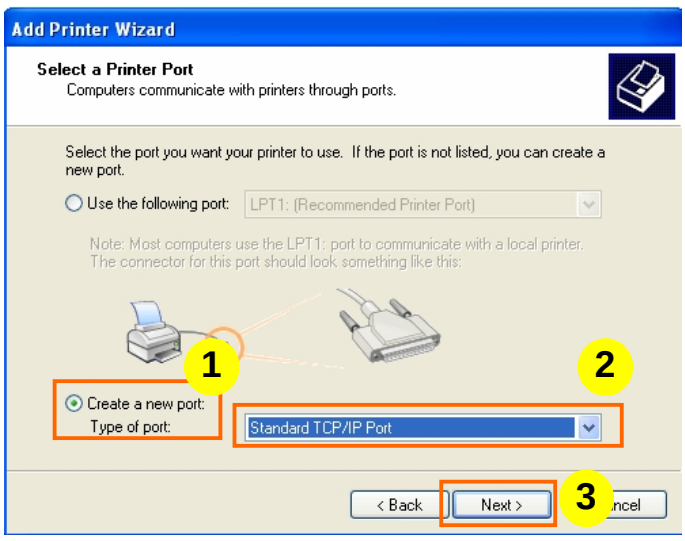
Please follow the steps below to complete the printer configuration for Windows XP platform.



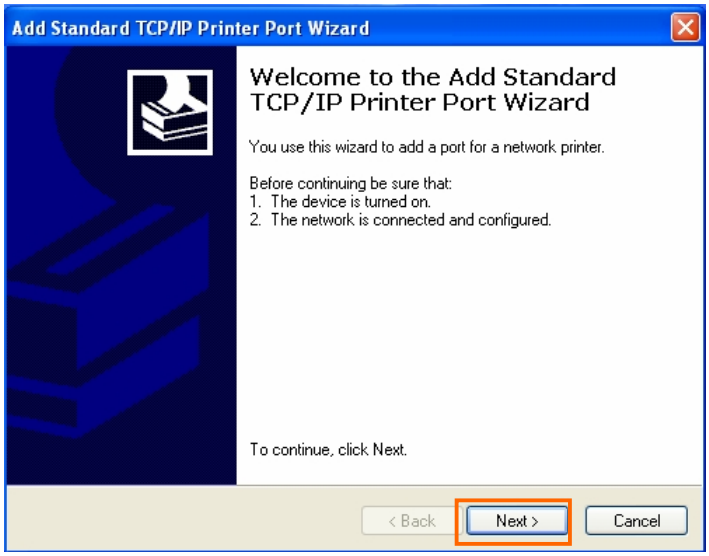
【Step1】
Go to desktop and click **Start** > **Printer and Faxes**.



【Step2】
Double click **Add a printer**.

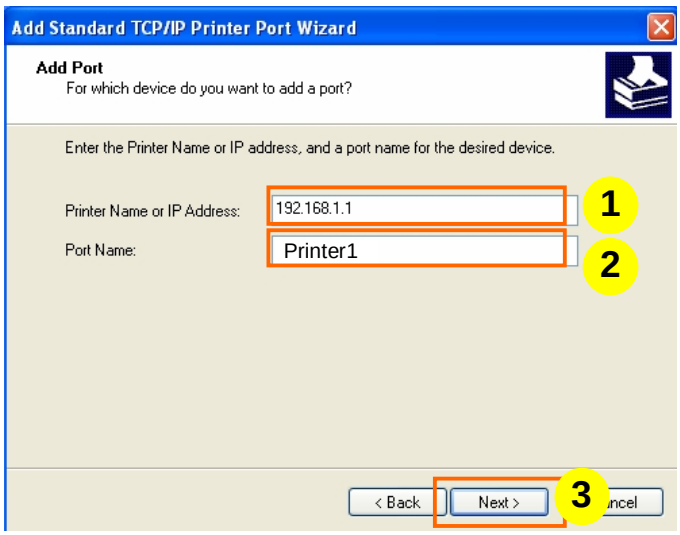


【Step3】
1. Select **Create a new port**.
2. Select the Type of port: **Standard TCP/IP Port**.
3. Click **Next**.



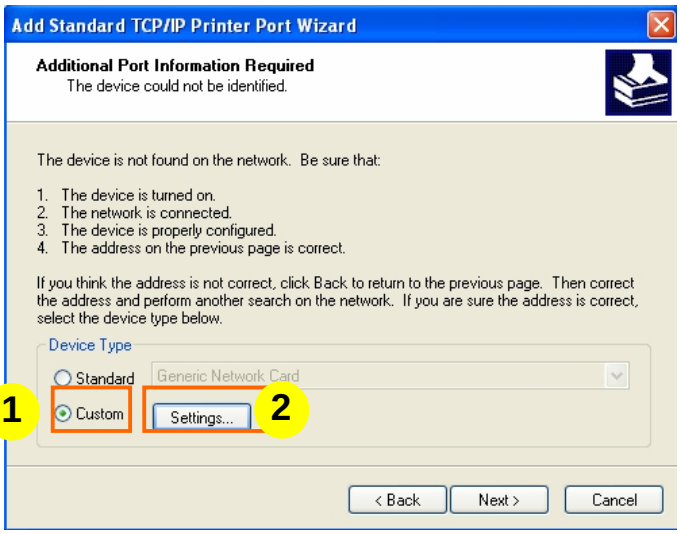
【Step4】

Click **Next**.



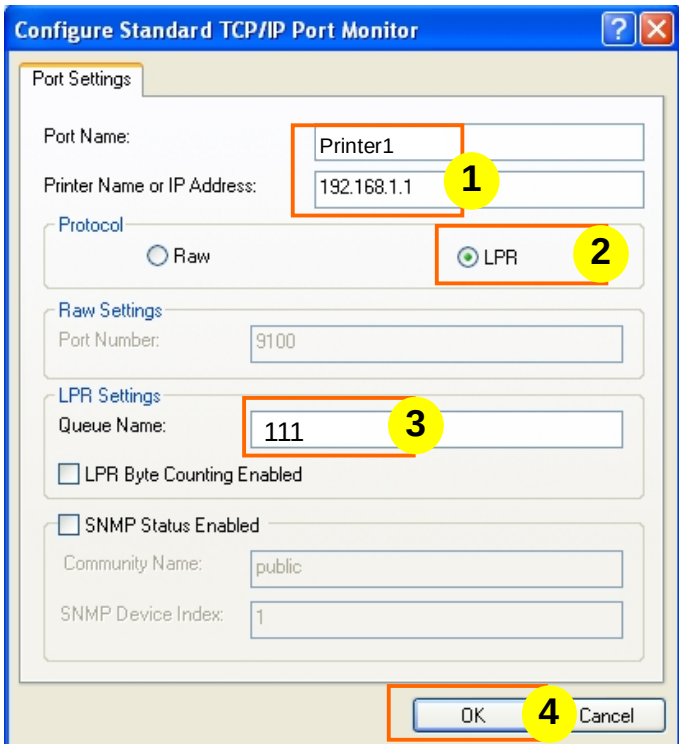
【Step5】

1. Input **192.168.1.1** in the IP Address field.
2. Give this port a name **"Printer1"** for example.
3. Click **Next**.



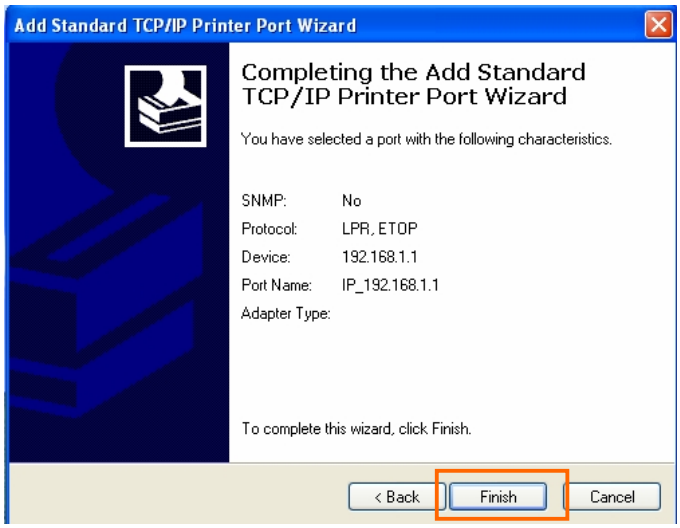
【Step6】

1. Select **Custom**.
2. Click **Settings**.



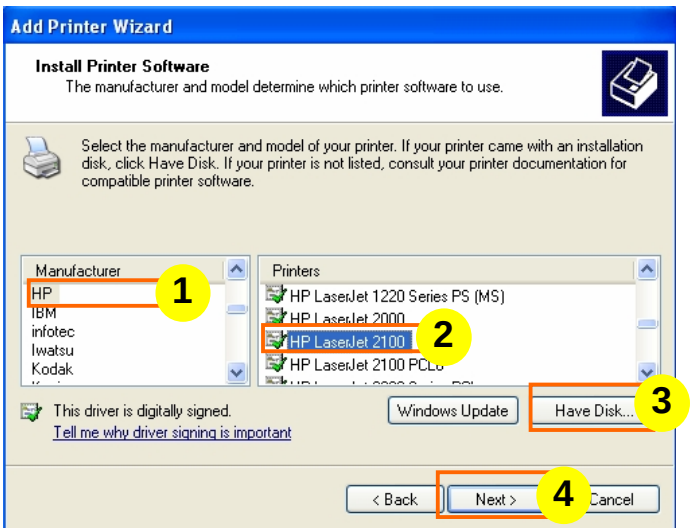
【Step7】

1. The information you had input will be showed on this screen.
2. Select **LPR**.
3. Input **Queue Name** "**111**" for example, which must be the same as the **USB Printer Name** you set on **Print Server** setting page.
4. Click **OK**.



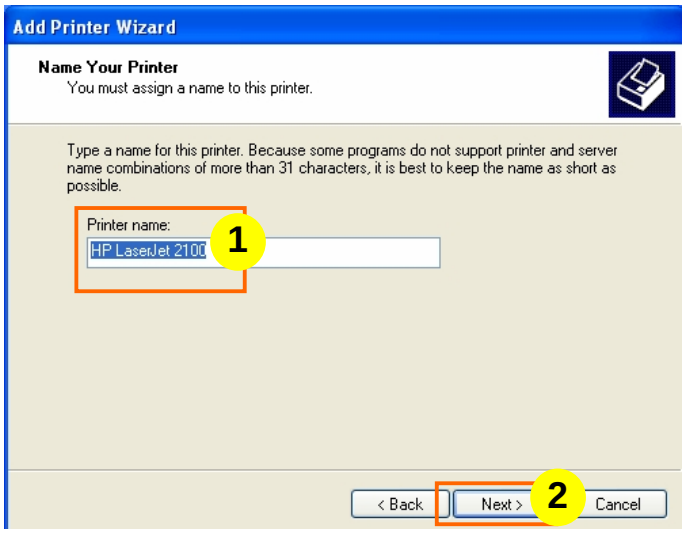
【Step8】

Click **Finish**.



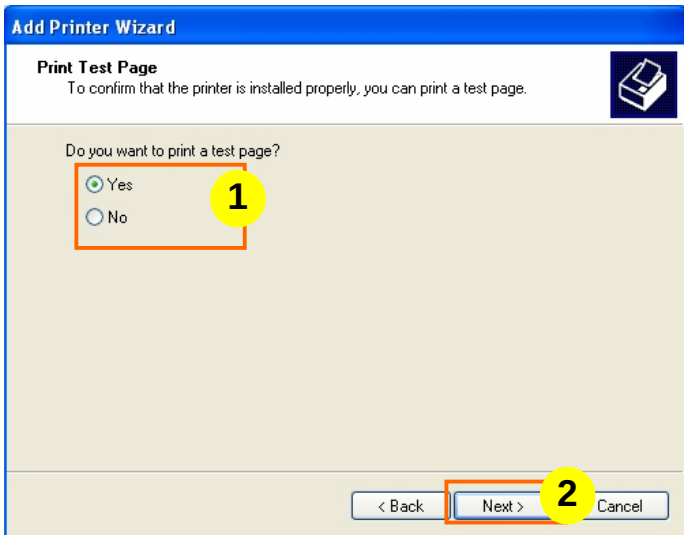
【Step9】

1. Select your printer's manufacturer **"HP"** for example.
2. Select your printer's model **"HP LaserJet 2100"** for example.
3. If yours is not on the list, please click **Have Disk…**to get yours from CD or floppy disc.
4. Click **Next**.



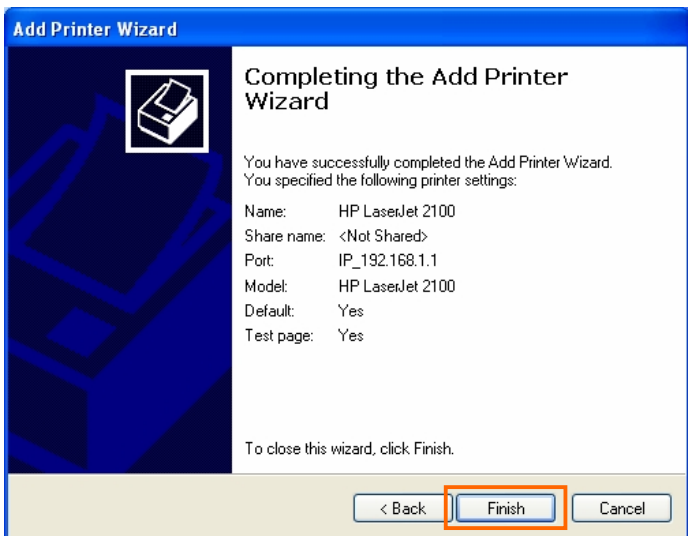
【Step10】

1. Your computer will supply a name for this printer automatically or you can change it.
2. Click **Next**.



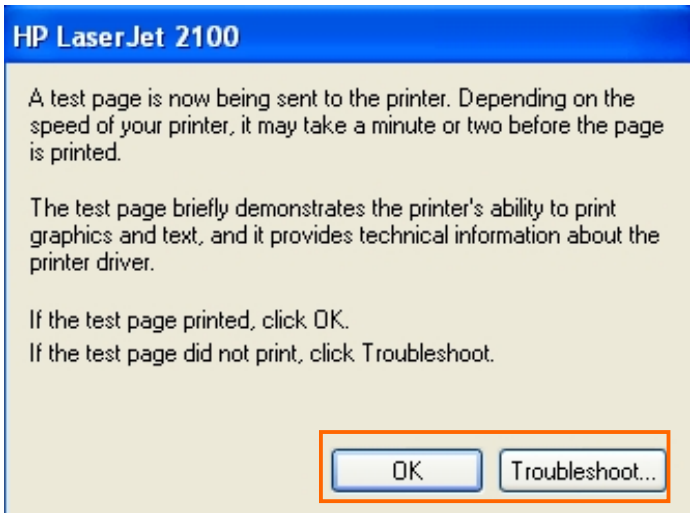
【Step11】

1. Select **Yes** or **No** to print a test page or not.
2. Click **Next**.



【Step12】

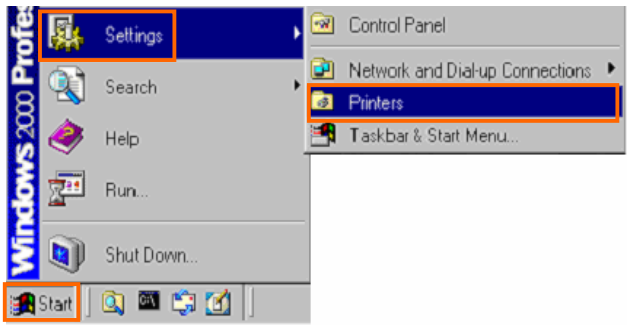
It shows you the printer settings that you have specified, and then click **Finish**.



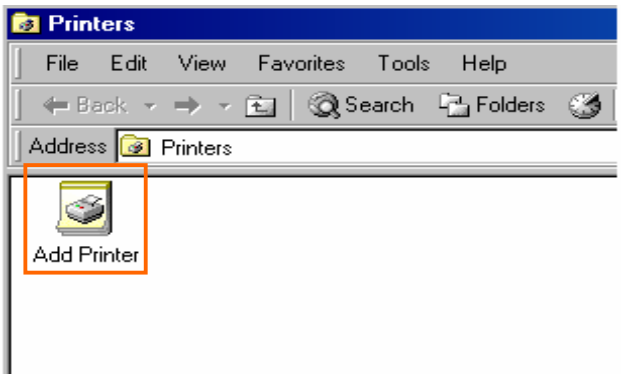
【Step13】
Click **OK**. If the test page isn't printed out, click **Troubleshoot**.

3.6.3.2.2 For Windows 2000

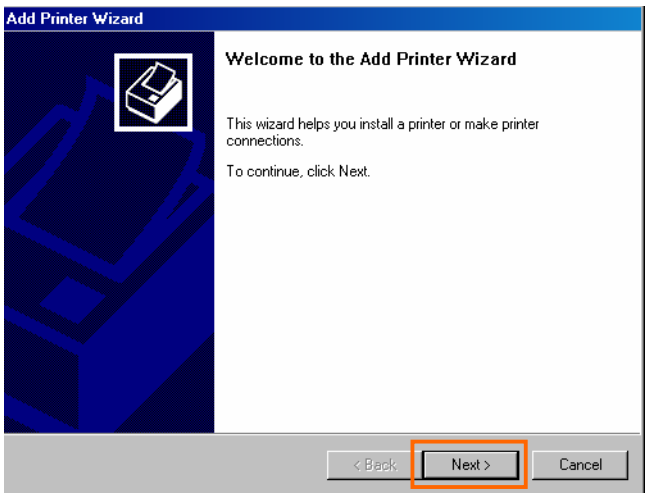
Please follow the steps below to complete the printer configuration on Windows 2000 platform.



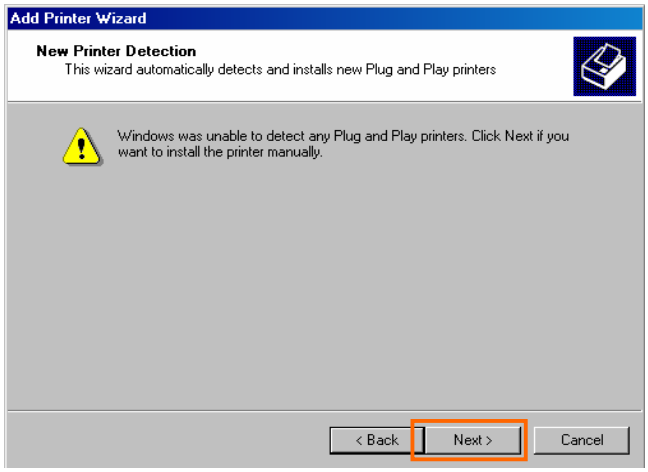
【Step1】
Go to desktop and click **Start** > **Settings** > **Printers**.



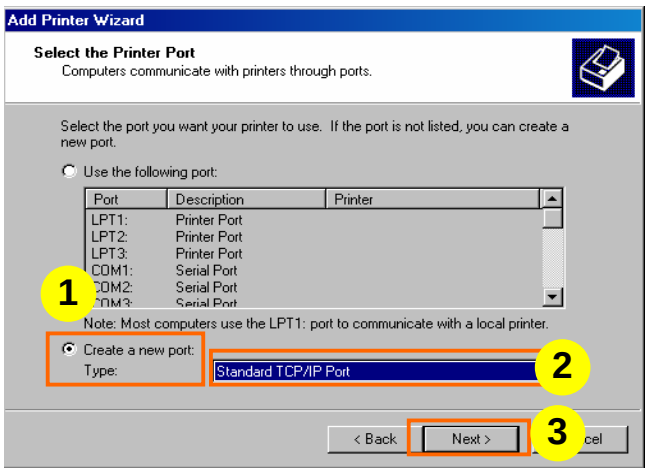
【Step2】
Double click **Add Printer**.



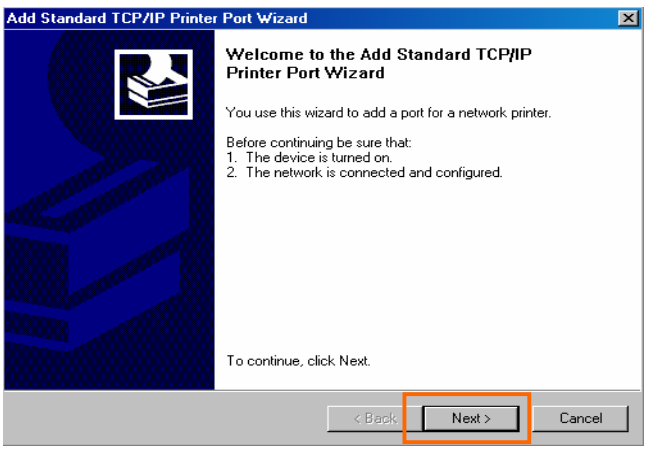
【Step3】
Click **Next**.



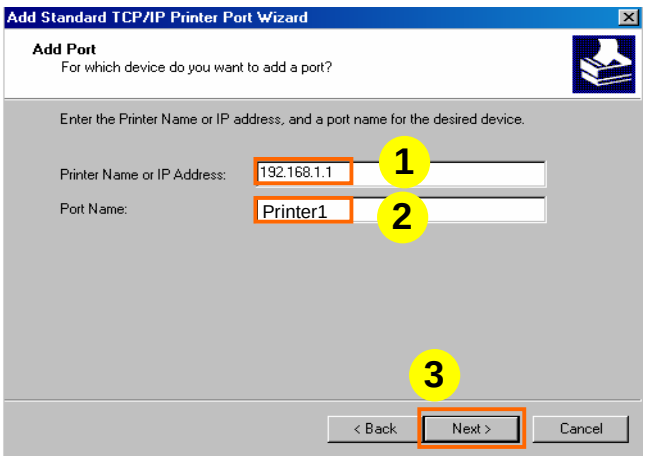
【Step4】
Click **Next**.



【Step5】
1. Select **Create a new port**.
2. Select the Type: **Standard TCP/IP Port**.
3. Click **Next**.

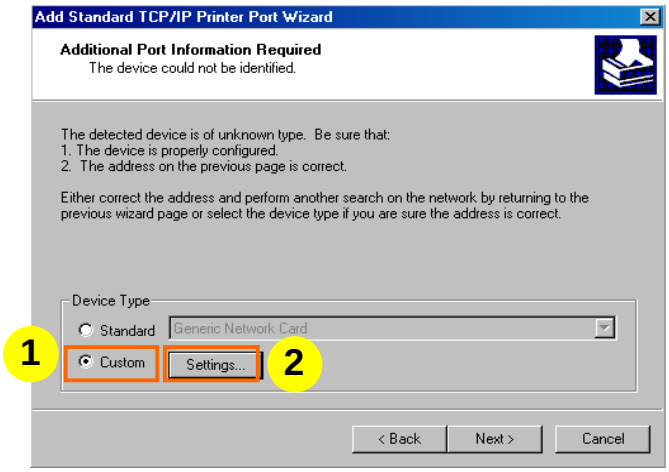


【Step6】
Click **Next**.



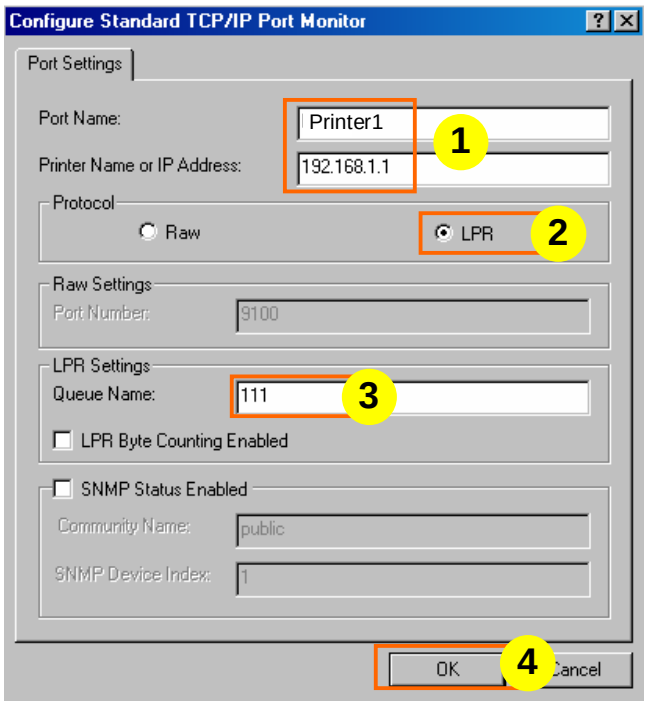
【Step7】

1. Input **192.168.1.1** in the IP Address field.
2. Give this port a name **"Printer1"** for example.
3. Click **Next**.



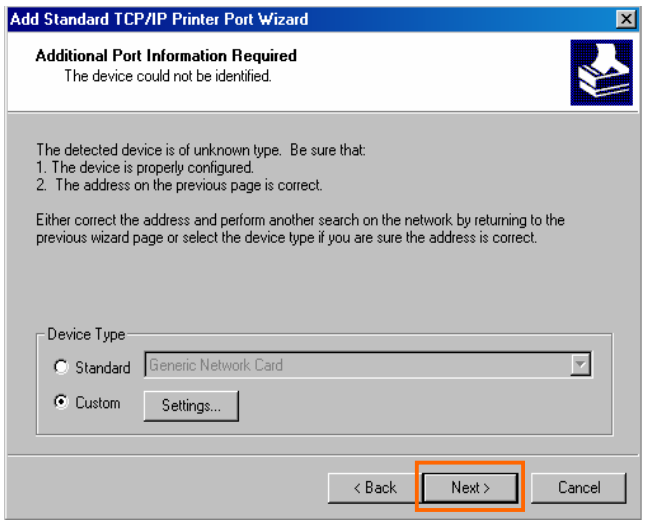
【Step8】

1. Select **Custom**.
2. Click **Settings**.

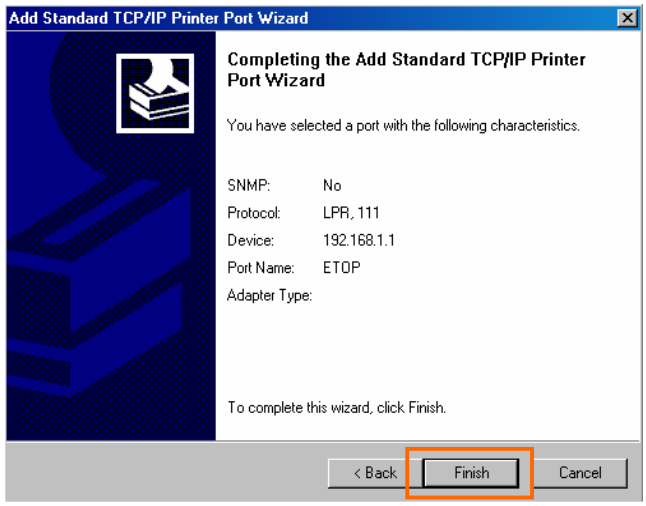


【Step9】

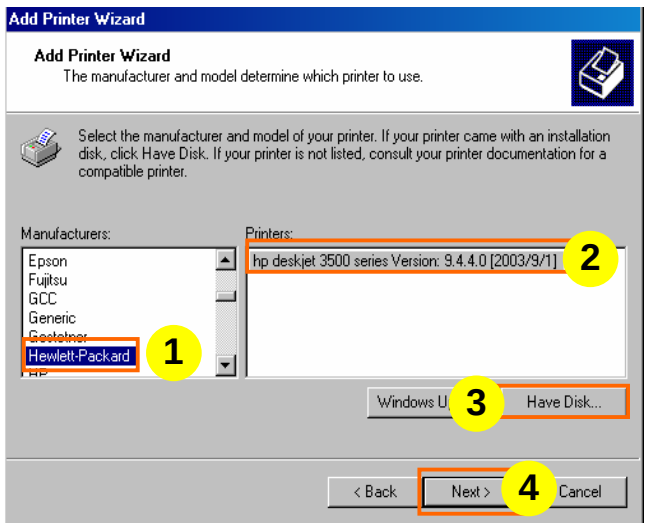
1. The information you had input will be shown on this screen.
2. Select **LPR**.
3. Input **Queue Name "111"** for example, which must be the same as the **USB Printer Name** that you set on **Print Server** setting page.



【Step10】
Click **Next**.

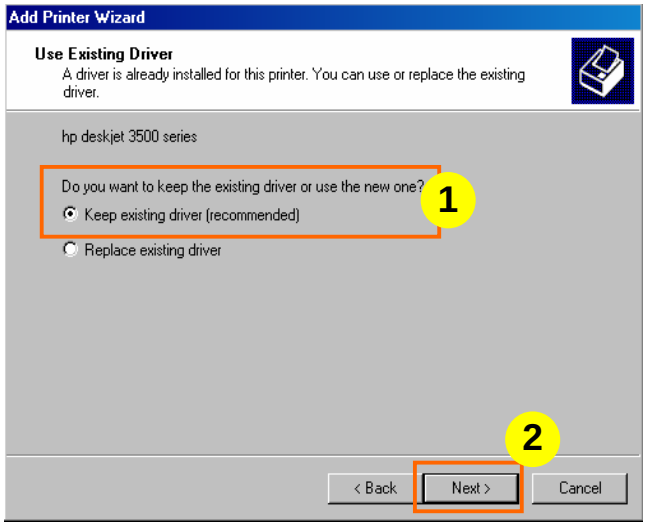


【Step11】
Click **Finish**.



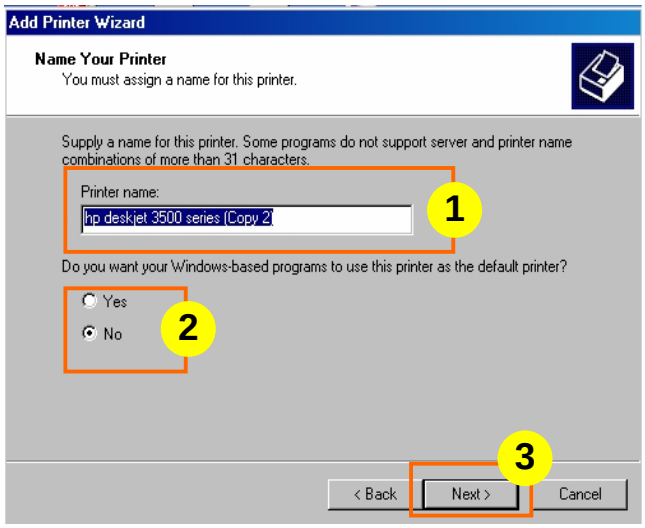
【Step12】

1. Select your printer's manufacturer **"Hewlett-Packard"** for example.
2. Select your printer's model **"HP deskjet 3500 …"** for example.
3. If yours is not on the list, please click **Have Disk…**to get yours from CD or floppy disc.
4. Click **Next**.



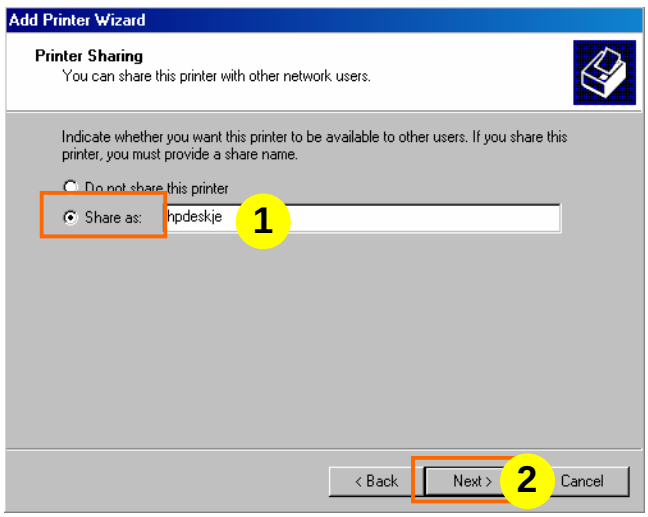
【Step13】

1. If you had installed the print driver, it will appear this window to ask you to keep you own or to replace it. We choose **Keep existing driver** for example.
2. Click **Next**.



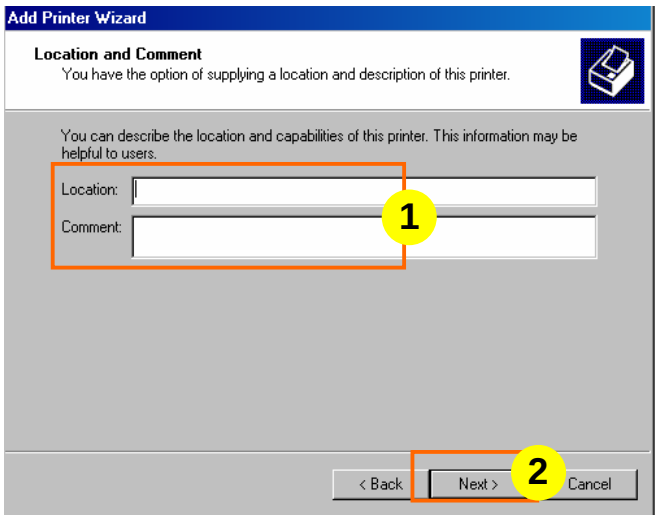
【Step14】

1. Your computer will supply a name for this printer automatically or you can change it.
2. Select **Yes** or **No** to use this printer as the default printer.
3. Click **Next**.



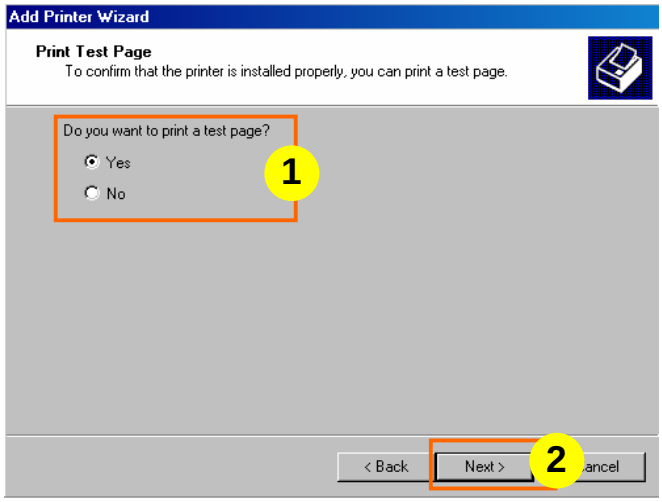
【Step15】

1. Select **Share as:** and Input a share name **“hpdeskje”** for example, if you want to share this printer to other users.



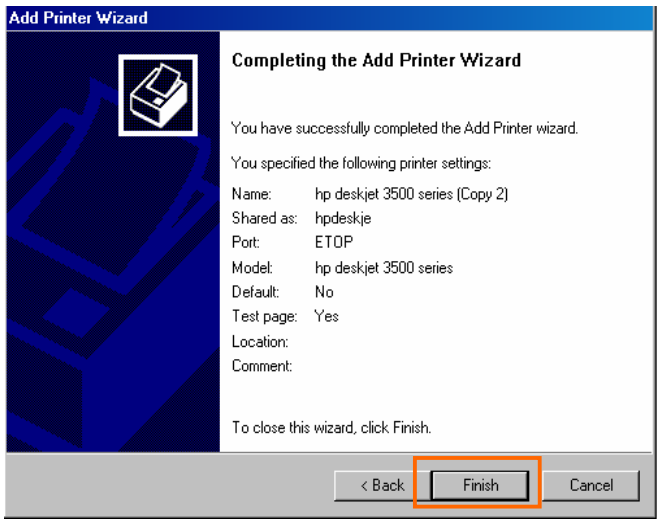
【Step16】

1. You can describe the location and capabilities of this printer or ignore it.
2. Click **Next**.



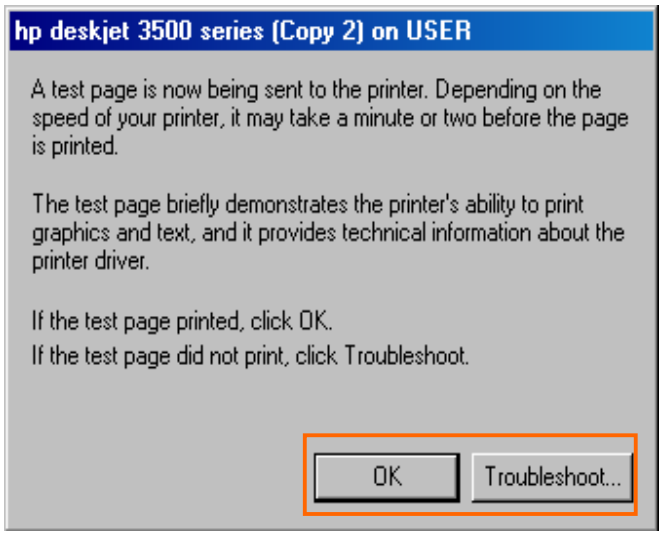
【Step17】

1. Select **Yes** or **No** to print a test page or not.
2. Click **Next.**



【Step18】

It shows you the printer settings that you have specified, and then click **Finish**.



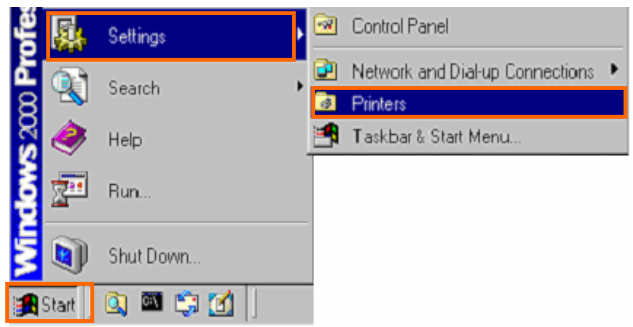
【Step19】
Click **OK**. If the test page isn't printed out, click **Troubleshoot**.

3.6.3.2.3 For Windows 98 or 98SE

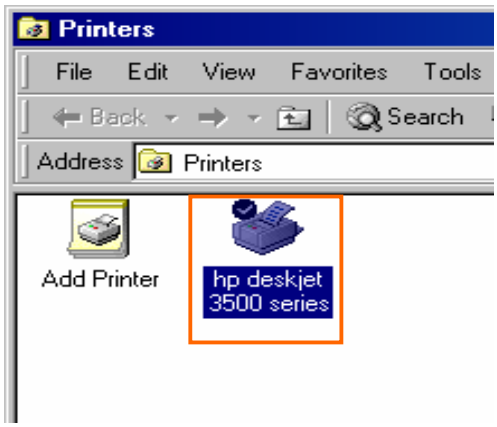
From the beginning, there must be two computers or more in the local network because Windows 98 or 98 SE doesn't support LPR TCP/IP printer sharing. So in detail there must be at least a Windows 2000 or up platform as the print server because it can share a printer to the client computer with windows98 or 98SE. This Setting is separated into two parts. The first part is Printer Settings on Windows 2000. The other part is Printer Settings on Windows 98 or 98SE.

3.6.3.2.3.1 Printer Settings on Windows 2000

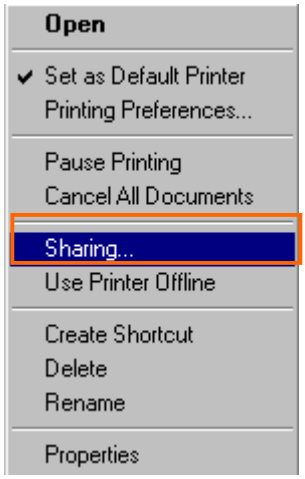
We suppose that the printer device has been installed and set on Windows 2000



【Step1】
Go to desktop and click **Start** > **Settings** > **Printers**.



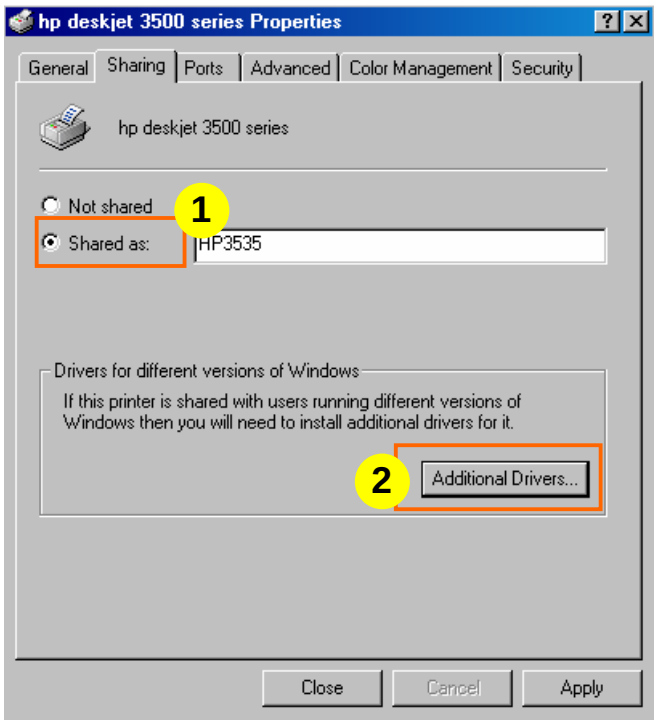
【Step2】
Click on the right button of your mouse.



【Step3】

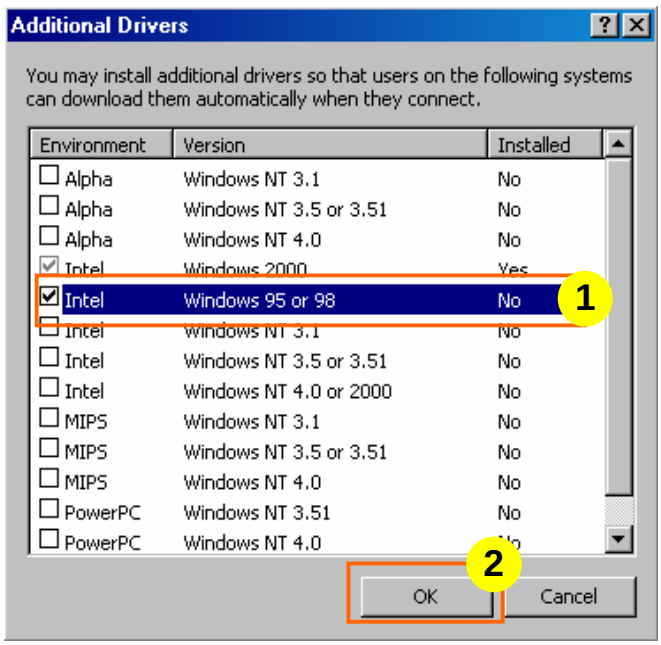
It will appear a pull down menu.

Select **Sharing**…



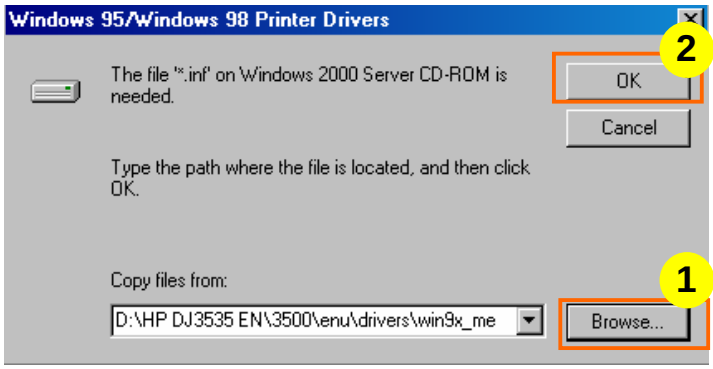
【Step4】

1. In **Shared as** field: The default printer model **"HP3535"** for example will appear.
2. Click **Additional Drivers…**.



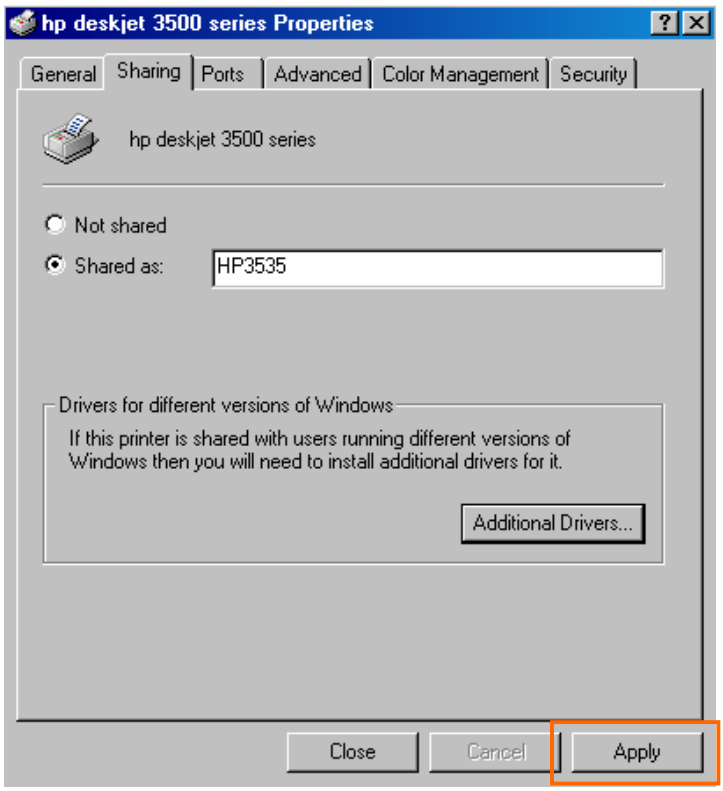
【Step5】

1. Select an operation system platform you want to share.
2. Click **OK**.



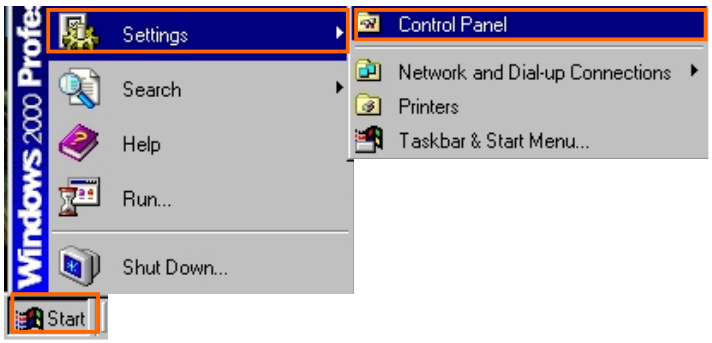
【Step6】

1. Click **Browse…** to find the path where the file is located.
2. Click **OK**.



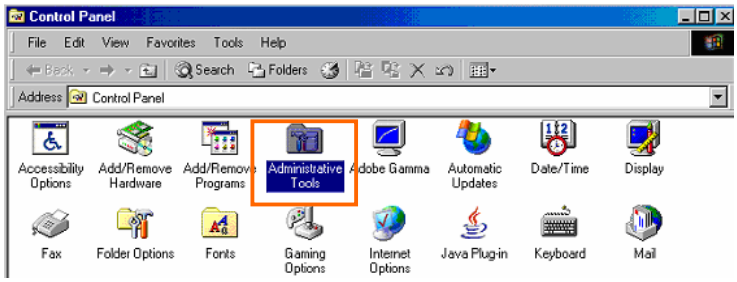
【Step7】

Click **Apply** to finish the settings.



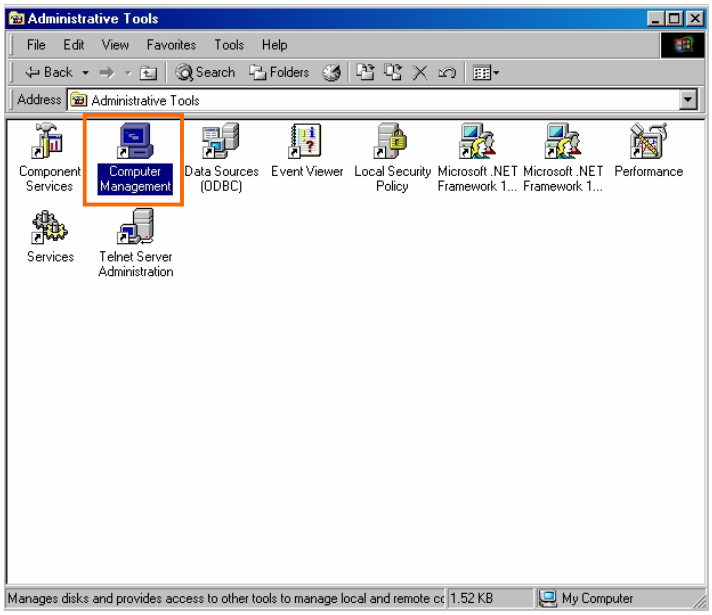
【Step8】

Go to desktop and click **Start** > **Settings** > **Control Panel**.



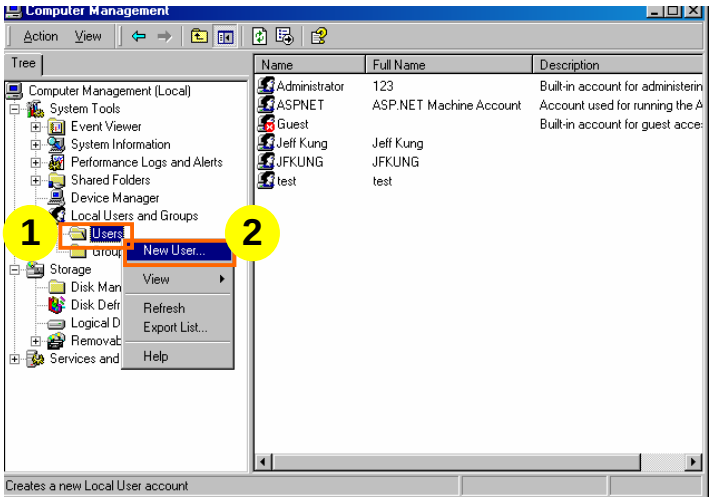
【Step9】

Double click **Administrative Tools**.



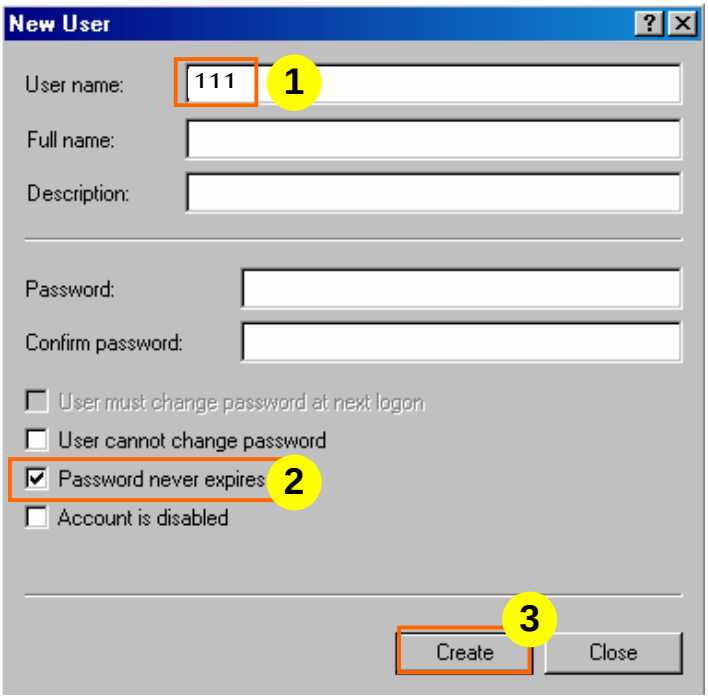
【Step10】

Double click **Computer Management**.



【Step11】

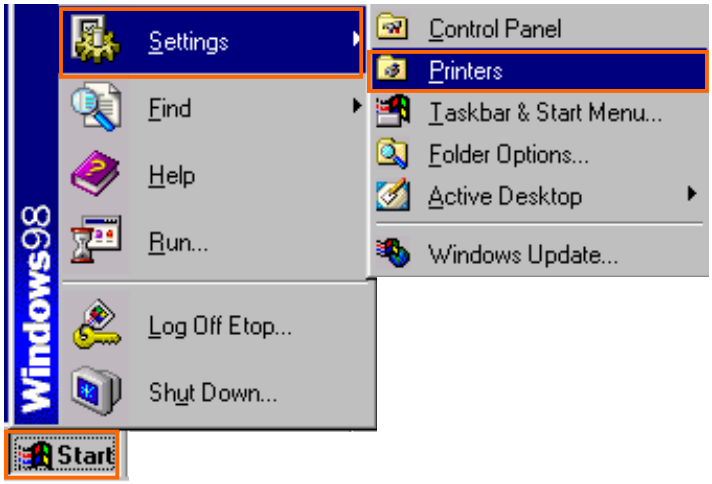
1. Move your cursor on the item **Users**.
2. Click the right button of your mouse. Select **New User…**.



【Step12】

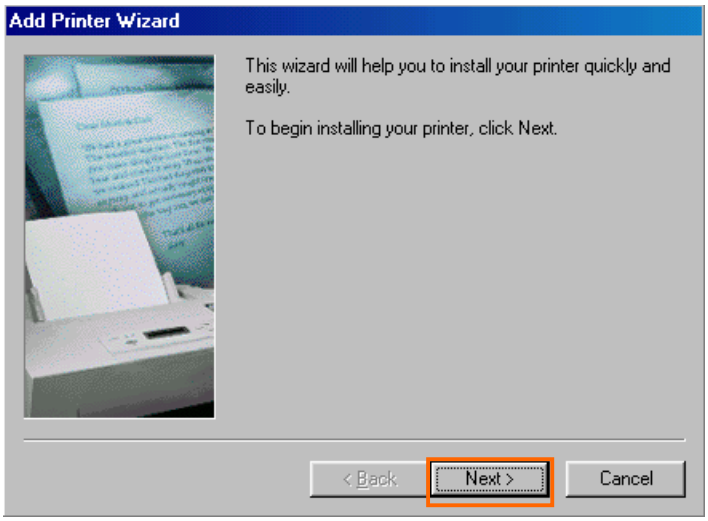
1. Input your client computer's name **111** for example.
2. Select **Password never expires**.
3. Click **Create** to save Windows 2000 printer settings

3.6.3.2.3.2 Printer Settings on Windows 98 or 98SE

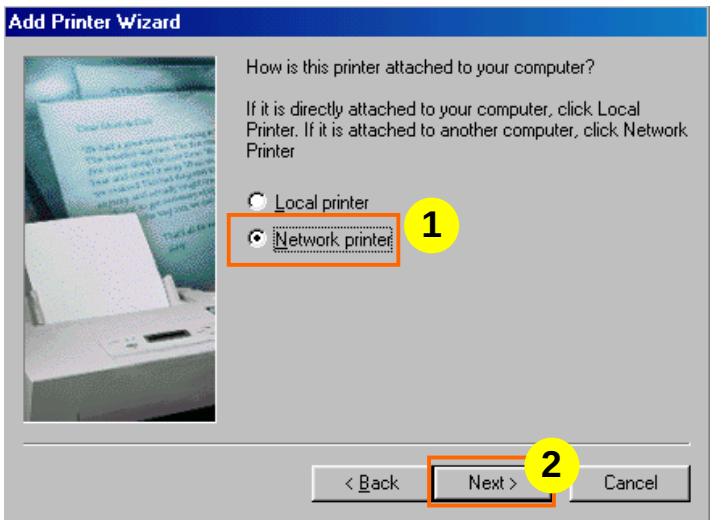


【Step1】
Go to desktop and click **Start** > **Settings** > **Printers**.

【Step2】
Double click **Add Printer**.

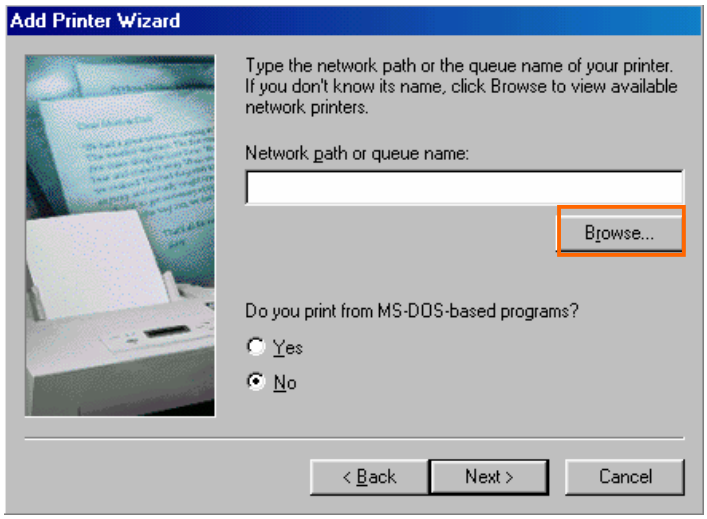


【Step3】
Click **Next**.



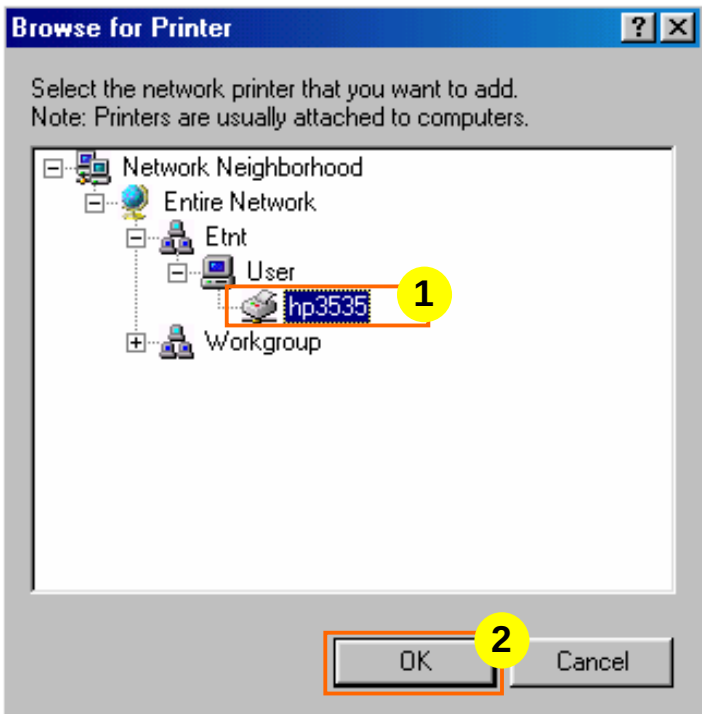
【Step4】

1. Select **Network printer**.
2. Click **Next**.



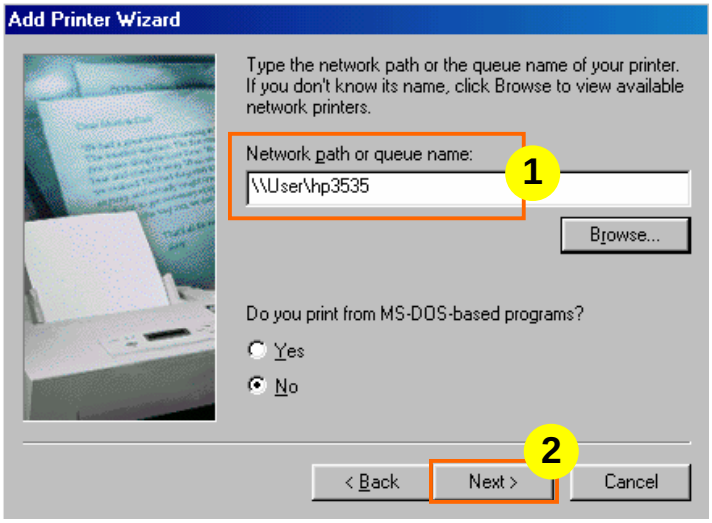
【Step5】

1. Click **Browse…**.



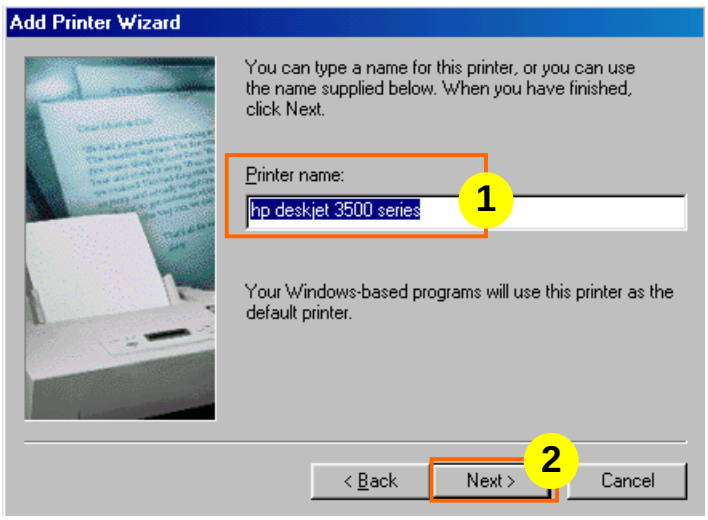
【Step6】

1. Find the printer that is attached to the computer **“hp3535”** for example.
2. Click **OK**.



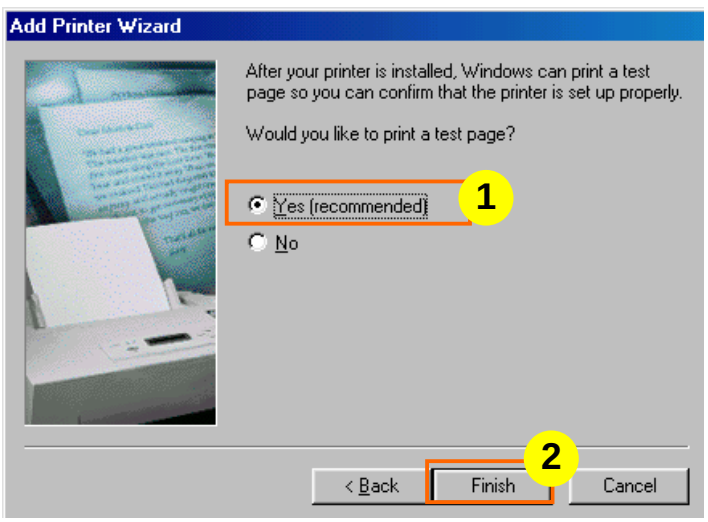
【Step7】

1. The Network path or queue name **\\User\hp3535** for example will appear automatically.
2. Click **Next**.



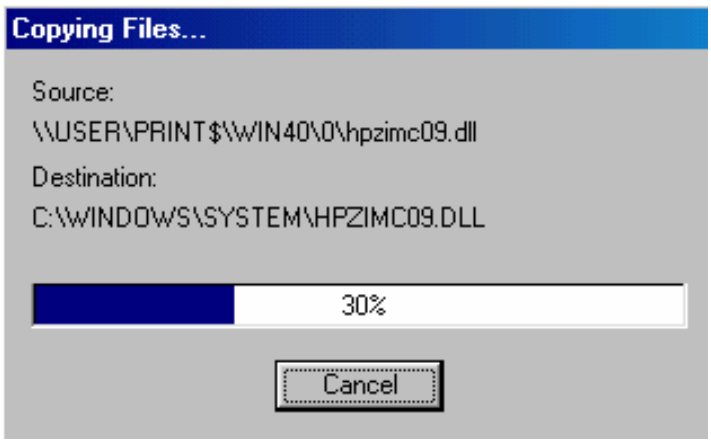
【Step8】

1. The Printer name **hp deskjet 3500 series** for example will be showed automatically.
2. Click **Next**.

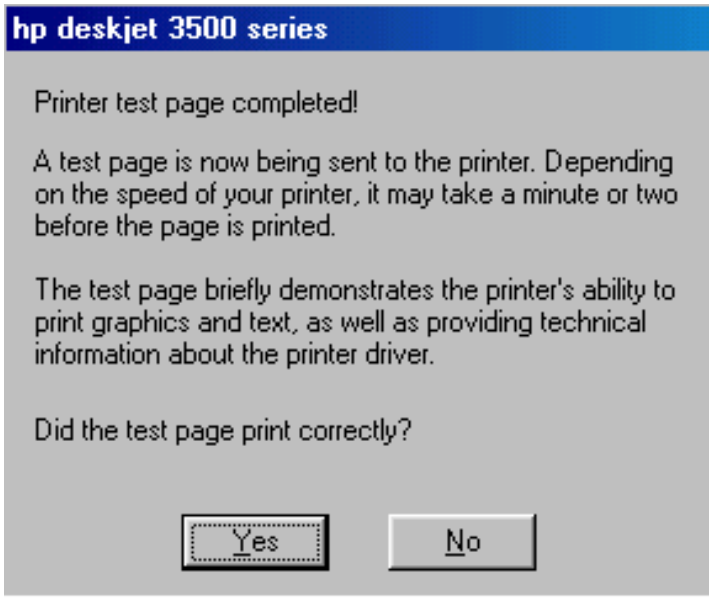


【Step9】

1. Select **Yes** to print a test page.
2. Click **Finish** to complete Windows 98 or 98SE printer settings.



【Step10】
The client computer with Windows 98 or 98SE will copy the print driver from the print server computer with Windows 2000.



【Step11】
The client computer with Windows 98 or 98SE will appear a test page screen, and then the sharing printer will print a test page. It means that the client computer can share the network printer if the test print is correct.

※Notice 1:

The PCs with Windows 98 or 98SE use the printer shared from the print server computer with Windows 2000 or up, please make sure that the print server computer is Power –On and on the LAN.

※Notice 2:

If you want to know whether your inserted device such as USB Web Camera, USB Printer or USB HDD corresponds with DN-11007-N, please check with your product provider.

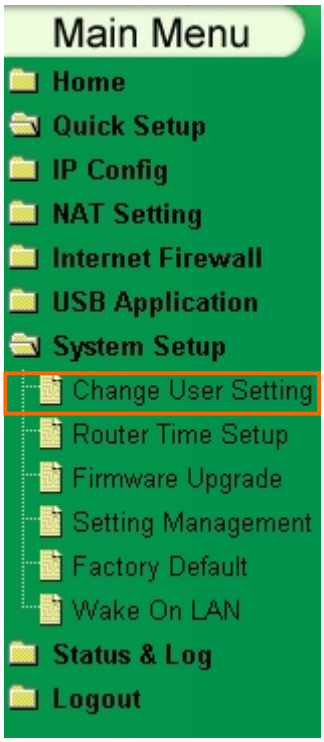
3.7 System Setup

System Setup

The System Setup contains 6 functional items, **Change User Setting**, **Router Time Setup**, **Firmware Upgrade**, **Setting Management**, **Factory Default** and **Wake On LAN**. Configuring these settings will give you much more control over DN-11007-N.

※ Tips are given when you move your cursor over each item.

3.7.1 Change User Setting



Select **Change User Setting** in the **System Setup** menu. Follow the instructions to enter the Change User Setting page to configure the settings you want..

※ Tips are given when you move your cursor over each item.

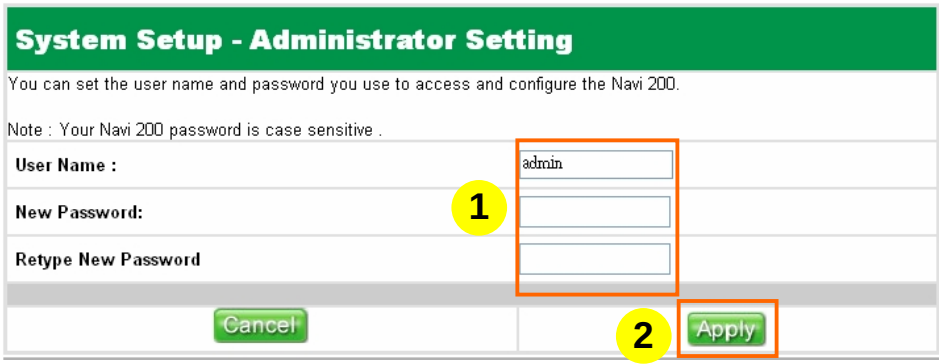
【Steps】

1. **User Name & New Password:**

   Just input User Name, New Password and retype your New Password (at most 15 usable characters; but cannot be blank).

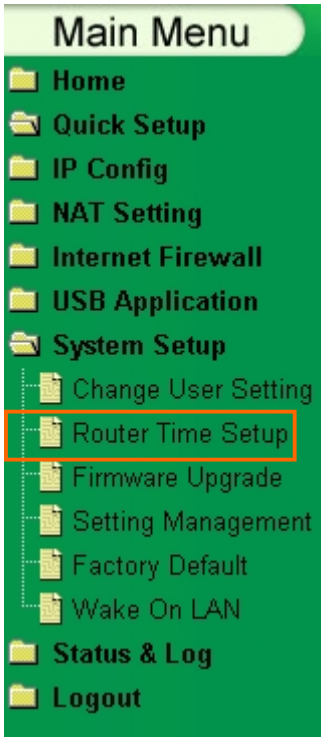
2. **Apply & Cancel**

   Click **Apply** to Confirm above settings and save your username and password. If you forget the username and password, please reset DN-11007-N to its factory settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.



3.7.2 Router Time Setup

You can set the clock to adjust daylight saving time in your area. Please follow the steps below to set up your router clock.



Select **Router Time Setup** in the **System Setup** menu. Follow the instructions to enter the Router Time Setup page to configure the settings you want.

※ Tips are given when you move your cursor over each item.

【Steps】

1. **Current Router Time:**

   The current router time is shown automatically after you click **Apply**.

2. **NTP**

   If you get a time from NTP server, please select one of the time suppliers.

3. **Time zone**

   Select a time zone from where the accurate time can be supplied.

4. **Daylight saving time?**

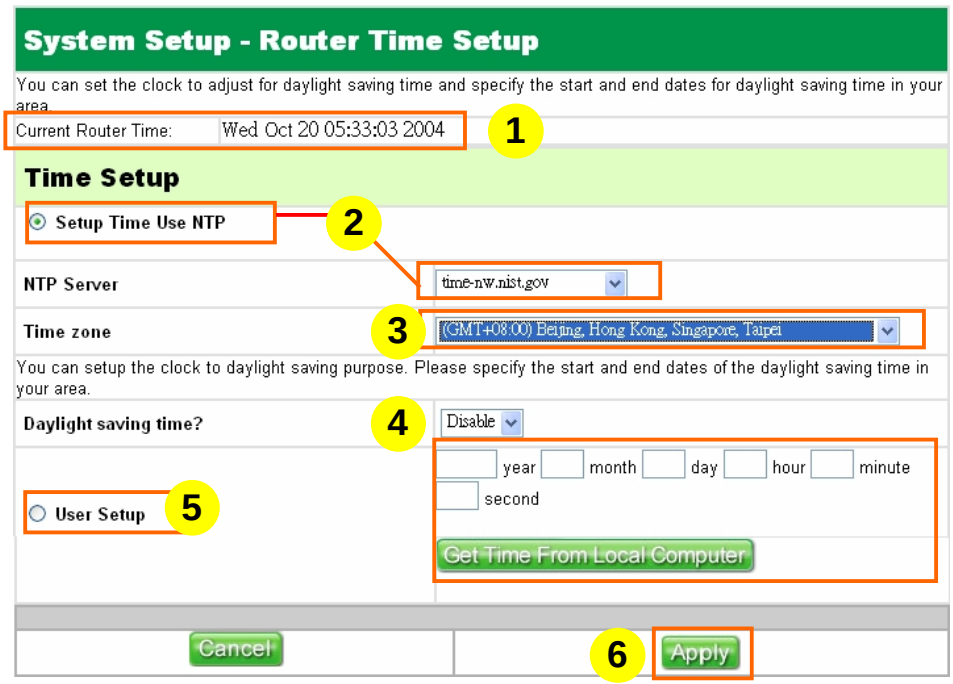
   If you select **Enable**, the summer and winter time will be adjusted automatically. If you select **Disable**, DN-11007-N won't do anything.

5. **User Setup**

   If you prefer getting time manually, please select **User Setup** and input time information in the blank fields or click **Get Time From Local Computer** to get time from your computer.

6. **Apply & Cancel**

   Click **Apply** to save the settings. If you want to clean the settings, please click **Cancel**. The functional button, **Cancel** can take effect after click on **Apply**.



3.7.3 Firmware Upgrade

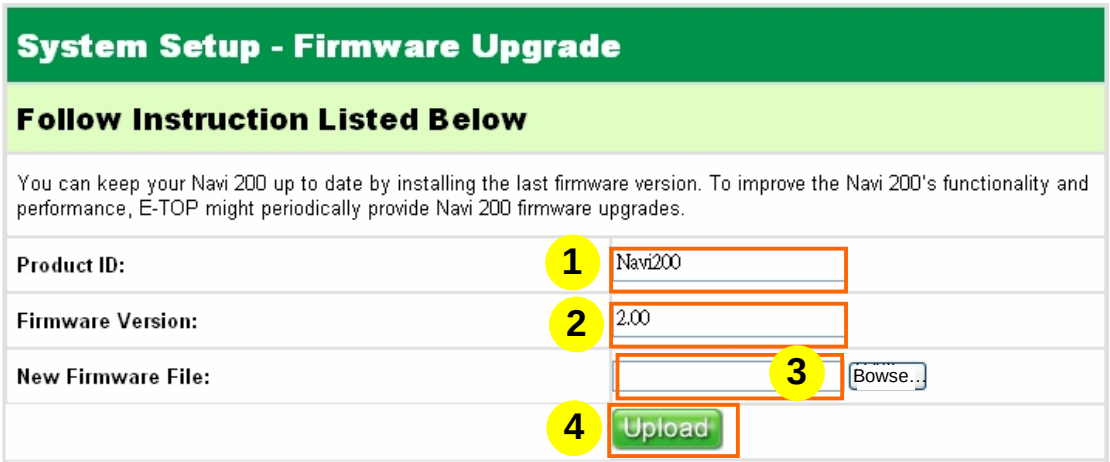
It will show you the DN-11007-N basic information, includes product ID, firmware version and upgrade function. Follow the steps below to configure.

Select **Firmware Upgrade** in the **System Setup** menu. Follow the instructions to enter the Firmware Upgrade page to configure the settings you want.

※ ***Tips are given when you move your cursor over each item.***

【Steps】

1. **Product ID:**
   Your Product ID **"DN-11007-N"** for example will be shown automatically after you selected Firmware Upgrade.
2. **Firmware Version:**
   Your Firmware Version **"2.00"** for example will be shown automatically.
3. **New Firmware File:**
   Click **Browse…** to get the New Firmware File.
4. **Upload**
   Click **Upload** to upgrade your DN-11007-N's Firmware to a new version.



3.7.4 Setting Management

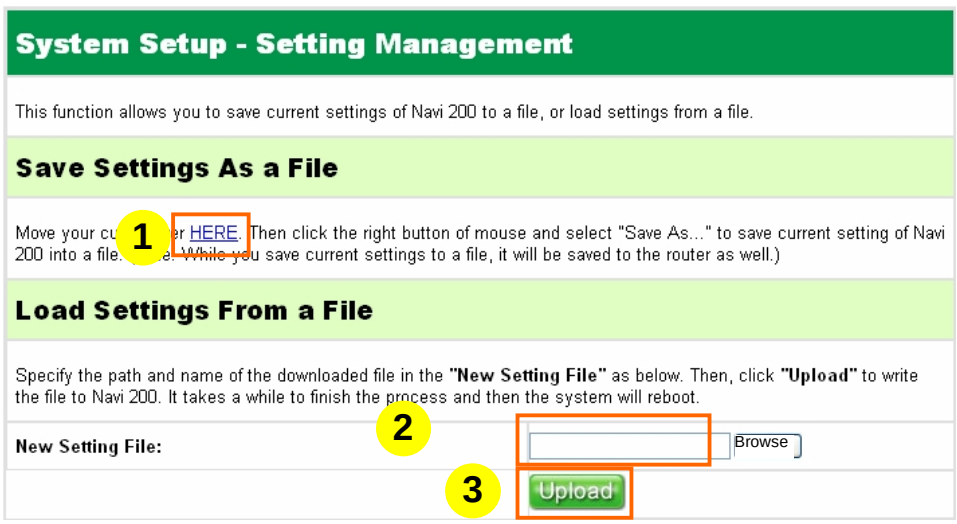
This function allows you to save current setting to a file, or to load a new setting from a saved file. Follow the steps below to configure.

Select **Setting Management** in the **System Setup** menu. Follow the instructions to enter the Setting Management page to configure the settings you want.

※ Tips are given when you move your cursor over each item.

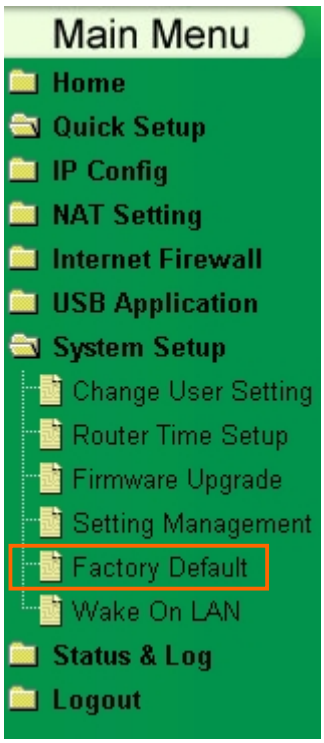
【Steps】

1. **Here**
   Click **Here** to save your current settings into a file for backing up before you reset DN-11007-N or your settings are missing.
2. **New Setting File:**
   If you want to get your original settings back, please click Browse… to find out the path and the file you saved.
3. **Upload**
   Click **Upload** to restore the original setting value. It will take a few seconds. The system will reboot automatically.



3.7.5 Factory Default

This part allows you backing to the default settings. Follow the steps below to configure.



Select **Factory Default** in the **System Setup** menu. Follow the instructions to enter the Factory Default page to configure the settings you want.

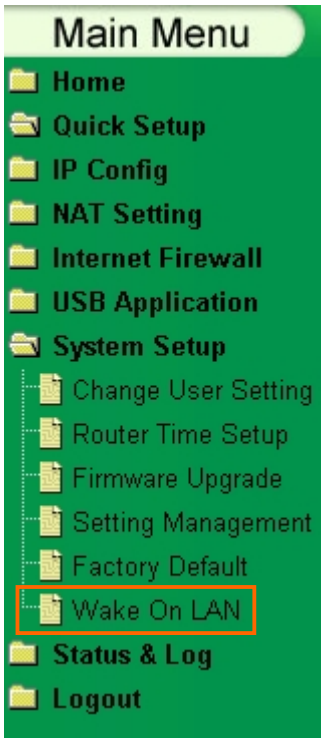
※ ***Tips are given when you move your cursor over each item.***

【Step】

You can restore all settings from the Factory Default page. Click **Restore** and it takes about 15 seconds to restore. When it's done, the DN-11007-N's Login Screen page will appear

3.7.6 Wake on LAN

This function allows the user to switch on a specified computer with a MAC address located on a LAN port of DN-11007-N. Follow the steps below to configure.

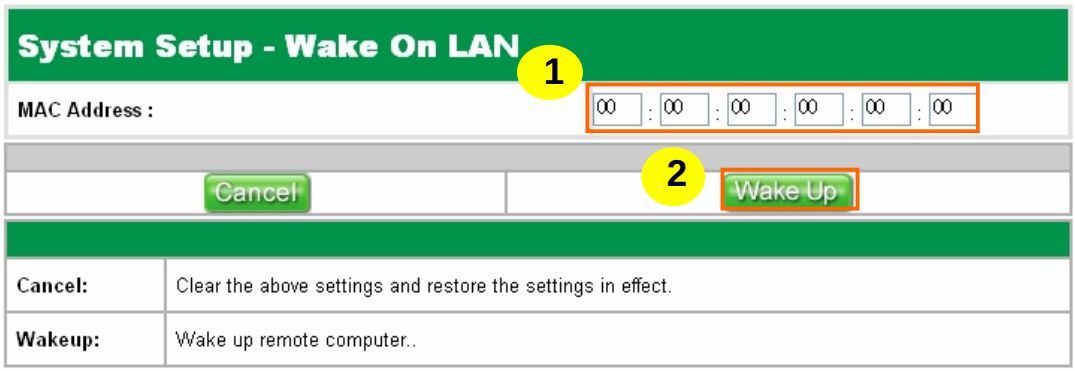


Select **Wake On LAN** in the **System Setup** menu.
Follow the instructions to enter the Wake On LAN page to configure the settings you want.

※ ***Tips are given when you move your cursor over each item.***

【Steps】

1. **MAC Address:**
   Input a computer's MAC address that you want to wake up.
2. **Wake Up & Cancel**
   Click **Wake up** to wake up a remote computer. Click **Cancel** to clear the above settings and restore the settings in effect.



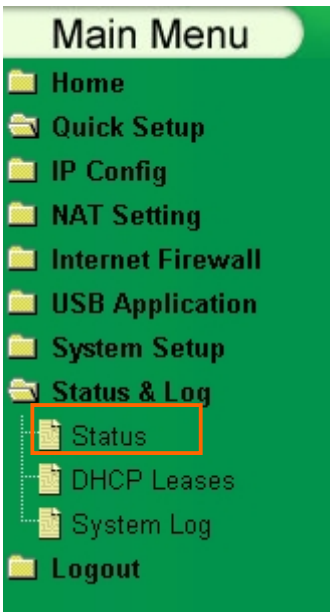
3.8 Status & Log

Status & Log

It contains three functional items, **Status**, **DHCP Leases** and **System Log**. This section displays a summary of Internet settings. If you can't go online, please check with the WAN IP address information here. Follow the instructions to configure your settings.

※ Tips are given when you move your cursor over each item.

3.8.1 Status



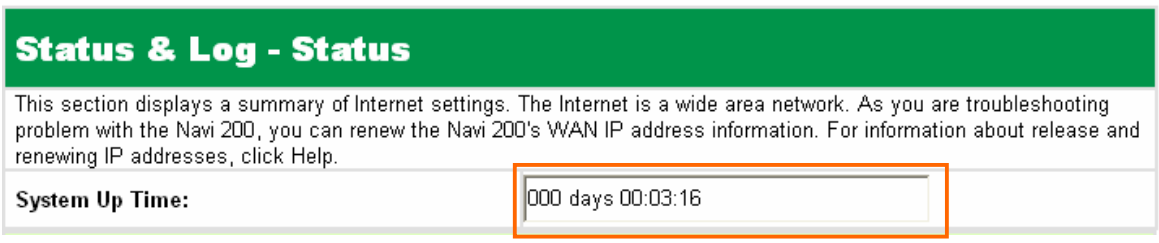
Select **Status** in the **Status & Log** menu.
Follow the instructions to enter the Status page to configure the settings you want.

※ Tips are given when you move your cursor over each item.

【Step1】

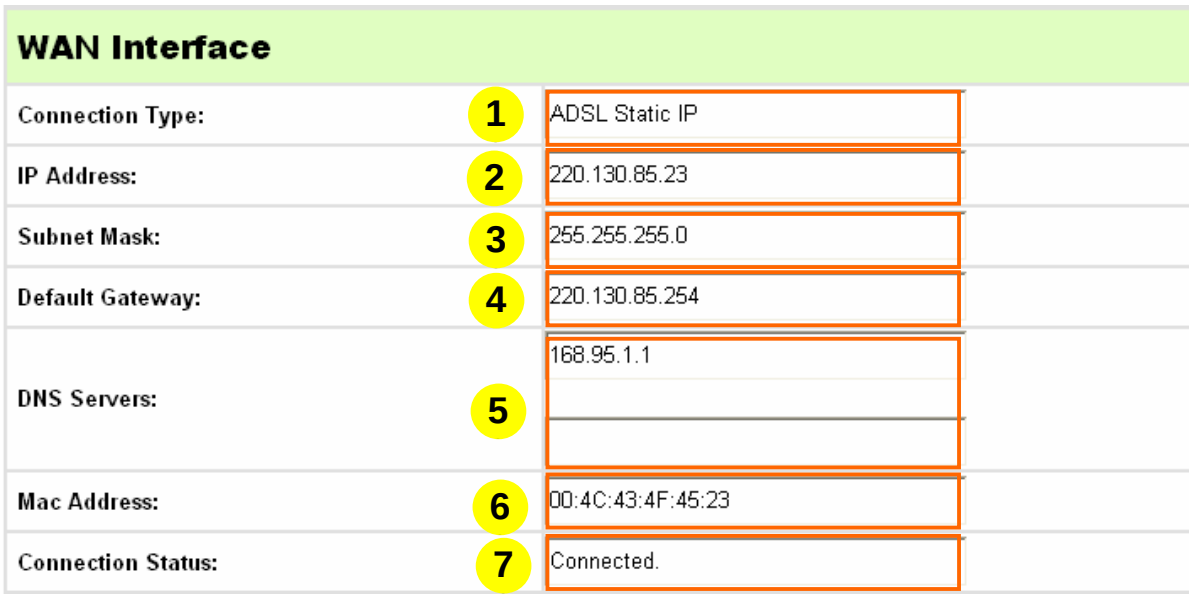
System Up Time:

System Up Time means the DN-11007-N's lasting time from System Up to System Down every time.



【Step2】

1. **Connection Type:**
   It means the WAN type you select in previous setting.
2. **IP Address:**
   It means the current WAN IP.
3. **Subnet Mask:**
   It means the current subnet mask.
4. **Default Gateway:**
   It means the current default gateway.
5. **DNS Servers:**
   It means the current DNS Server.
6. **Mac Address:**
   It means the current Mac Address of WAN interface.
7. **Connection Status:**
   It means the current connection status.

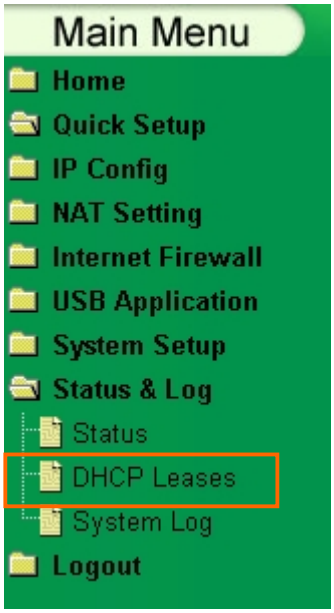


【Step3】

1. **IP Address:**
   It means the current LAN IP.
2. **Subnet Mask:**
   It means the current Subnet Mask.
3. **Mac Address:**
   It means the current Mac Address of LAN Interface.
4. **Printer Model:**
   It means the default printer model.
5. **Printer Name:**
   It means the default printer name.
6. **Status:**
   It means the current status of the printer.
7. **Refresh**
   Click **Refresh** to renew the information of this setting page.

3.8.2 DHCP Leases

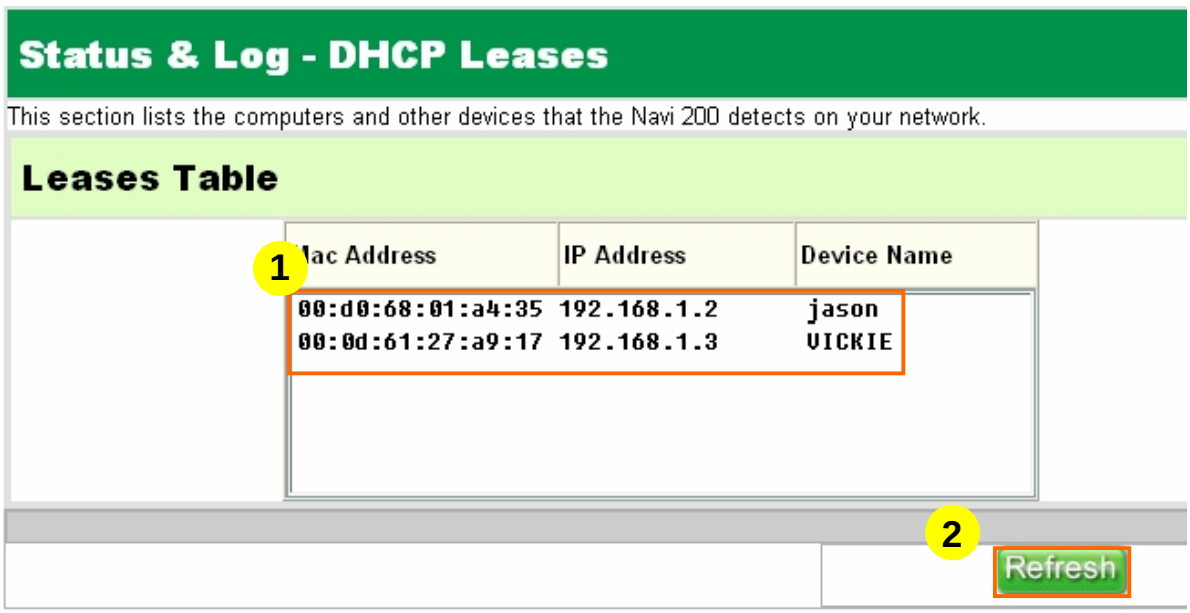
This part lists the computers and other devices that the DN-11007-N detects on your network. Follow the steps below to configure.



Select **DHCP** in the **Status & Log** menu.
Follow the instructions to enter the DHCP Leases page to configure the settings you want.
※ Tips are given when you move your cursor over each item.

【Steps】

1. **Leases Table**
   It means the DHCP Leases of LAN Interface.
2. **Refresh**
   Click **Refresh** to renew the information of this setting page.



3.8.3 System Log

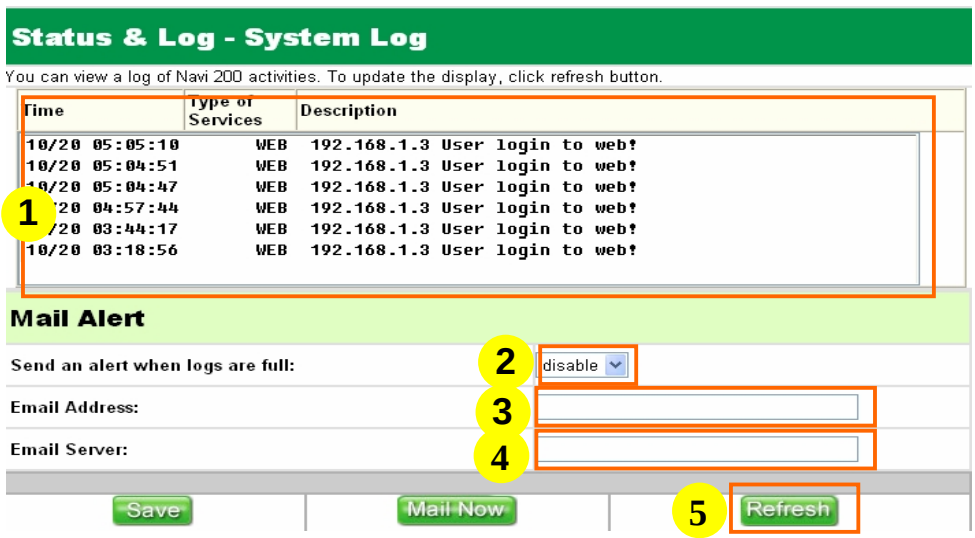
This part displays all user records of accessing DN-11007-N settings.

Select **System Log** in the **Status & Log** menu.
Follow the instructions to enter the System Log page to configure the settings you want.

※ Tips are given when you move your cursor over each item.

【Steps】

1. **System Log**
   This log includes Time, Type of Services and Description.
2. **Send an alert when logs are full:**
   If you enable this function, an alert mail will be sent to the indicated email address when the table is full of logs,
3. **Email Address:**
   Input an email address where you would like to send the log.
4. **Email Server:**
   Input your mail server address.
5. **Save, Mail Now & Refresh**
   Click **Save** to store your setting, or click **Refresh** to renew the logs.
   You can click **Mail Now** to send the log to the address you set.



3.9 Logout

Logout

When you click **Logout**, the DN-11007-N setting page will change to the Login Screen page. Follow the instructions.

【Step1】

Select Logout in the Main Menu.

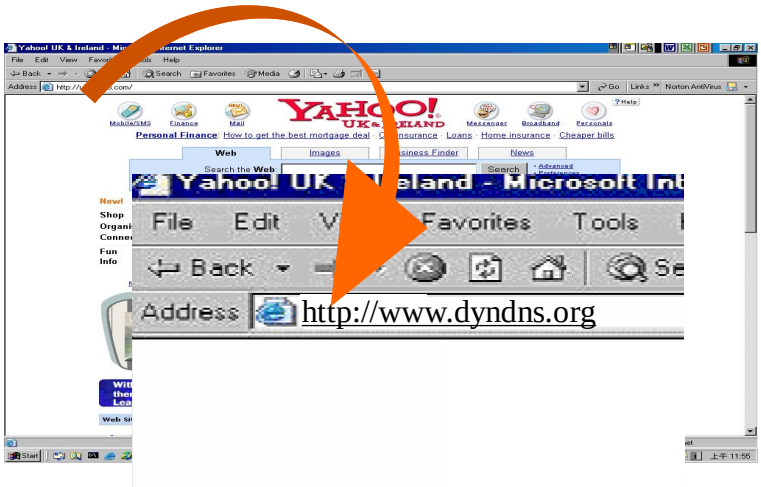
※ ***Tips are given when you move your cursor over each item.***

【Step2】

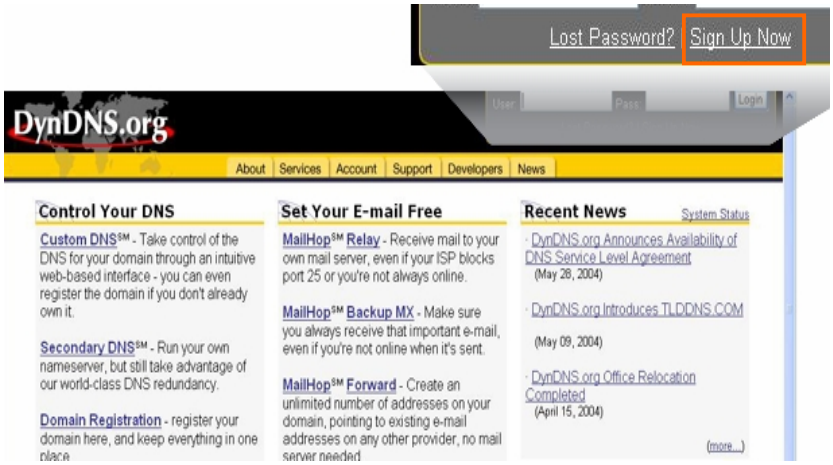
After selecting logout, you will return to the Login Screen page.

Chapter 4: DDNS Service

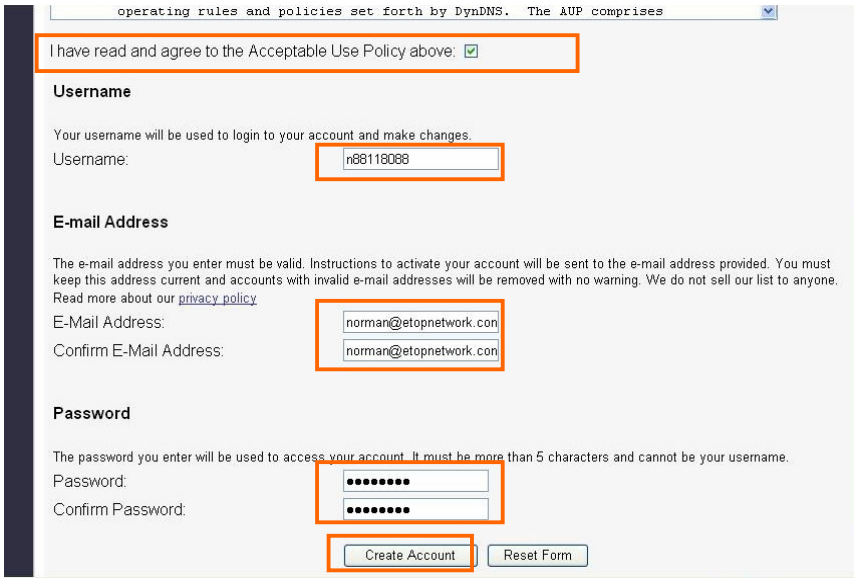
DDNS is a service let the dynamic IP change to the static IP. The settings of DDNS can solve the problem of being given the different IP every time. After setting the Router, your hostname would correspond to your dynamic IP. You just use the hostname instead of your static IP. Moreover, via the hostname application, it could be easier to use your webcam remotely. Please follow the steps to complete your settings.



【Step1】
Make sure you can access Internet and input **http://www.dyndns.org**

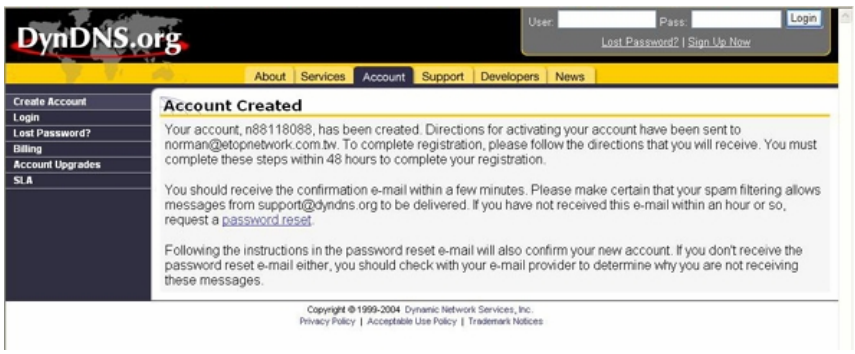


【Step2】
Click **Sign Up Now**.



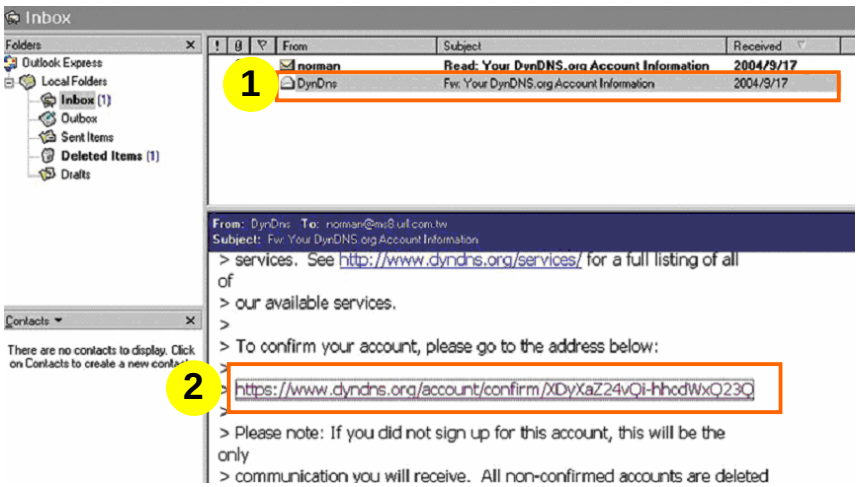
【Step3】

Please finish these blank fields. Then, click **Create Account**.



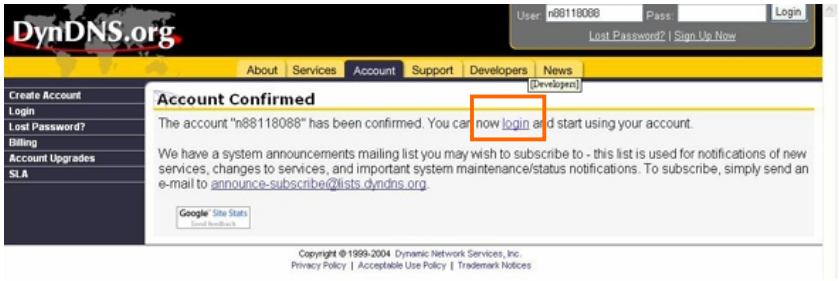
【Step4】

When you got this account created message, close it, and check your mailbox. You would get a mail from DynDNS website.

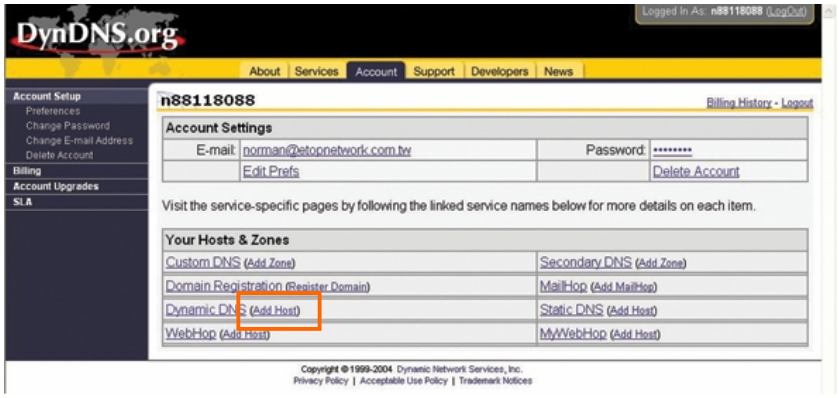


【Step5】

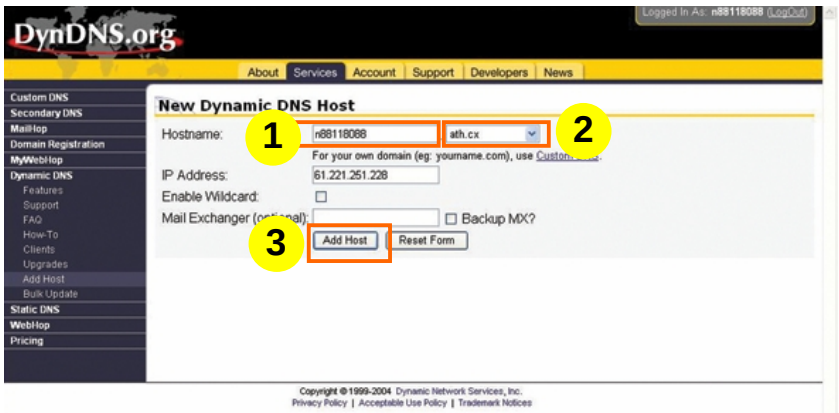
1. Click the mail.
2. Click the address: https://www.dyndns.org/account/confirm/XDyXaZ24vQi-hhcdWx0230



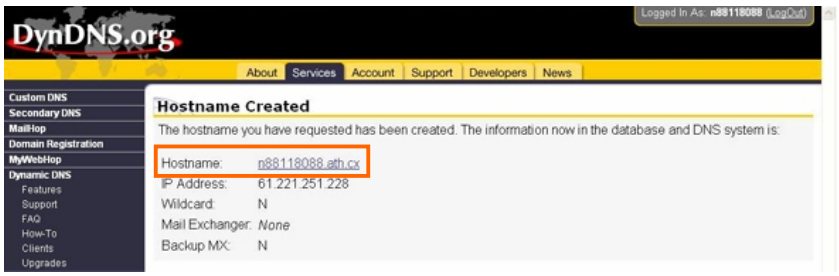
【Step6】
Click **login**.



【Step7】
Click the **Add Host** of Dynamic DNS.



【Step8】
1. Input the name created in step2
2. Select one of the tails you like.
3. Then, click **Add Host.**



【Step9】
Your hostname have been created.

Chapter 5: Q & A

1. Q: Why doesn't DN-11007-N power up?
   A: Check if the output voltage is suitable, or check if the power supply is out of order.

2. Q: The Internet browser still cannot find or connect to the DN-11007-N after verifying the IP address and LAN cable, the changes cannot be made, or password is lost.
   A: In case the DN-11007-N is inaccessible, you can try to restore its factory default settings. Please press the "Reset" button on the front of DN-11007-N and keep it pressed for over 5 seconds and the light of STATUS will vanish. The LEDs will flash again when reset is successful.

3. Q: I cannot view webcam's video screen from WAN.
   A: Please follow the steps below.
   Step1. Open Internet browser and enter http://**192.168.1.1** in the address field.
   Step2. Enter **admin** in both "User Name" and "Password" fields. Then, click **Login**.
   Step3. Click **IP Config** to select **Miscellaneous** in the Main Menu.
   Step4. Then, click **Yes** to enable **Webcam Access From WAN**.
   (Note: If you select JAVA mode preview, please download JAVA software from http://www.java.com/en/download/manual.jsp)

4. Q: I don't know my WAN IP.
   A: There are two ways to know.
   Way 1: Check with your Internet Service Provider.
   Way 2: Check the setting screen of DN-11007-N. Click **Status & Log** to select **Status** in the Main Menu. WAN IP is shown on the WAN interface.

5. Q: Why can't my printer work?
   A: For more details, please refer to Chapter 3 Print Server in the USB Application. Maybe DN-11007-N doesn't support your printer. You can contact with us to get more updated information about printer driver support.

6. Q: Why does DN-11007-N shut down unexpectedly?
   A: Re-plug your power adapter. Then, check the STATUS indicator; if it is off, the internal flash memory is damaged. For more help, please contact with your provider.

7. Q: Why does DN-11007-N's setup page shut down unexpectedly?
   A: If one of the pages appears incompletely in the DN-11007-N's setup pages, please click **Logout** in the Main Menu before it shutting down**.** Don't keep on working. Then, close Internet browser and open it again for going back to the former page.

8. Q: Why can't be the NTFS hard disk used with DN-11007-N?

A: DN-11007-N doesn't support the NTFS hard disk. It only supports FAT16 and FAT32 hard disk.

9. Q: Why can't my USB devices and LAN ports work properly after setting the DHCP?

A: There are two rules over here.

Rule1: After connecting USB devices, please reboot your Router.

Rule2: Before finishing the DHCP setup, please don't connect any computer to LAN ports, because the conflict of having the same IP may occur and cause some computers a lot of trouble.

(Notice: Make sure that you always click the **Apply** key after configuring every setting. And in order to let others LAN ports working properly, please reboot your PC.)

10. Q: Why can't my USB devices work on DN-11007-N?

A: Maybe your USB devices and DN-11007-N are not compatible. So if you want to know whether your inserted device such as USB Web Camera, USB Printer or USB HDD corresponds with DN-11007-N, please check with your product provider.

11. Q: Why can't my computer work online after connecting to DN-11007-N?

A: It's possible that your Internet protocol (TCP/IP) was set to **use the follow IP address**. Please do as the following steps. **Start** > **Settings** > **Network and Dial-up Connections** > double click **Internet Protocol(TCP/IP)** > select **obtain IP address automatically** > click **OK.** Then, open Internet browser for testing. If you still can't go online, please test something else below.

- Verify network configuration by ensuring that there are no duplicate IP addresses.
- Power down the device in question and ping the assigned IP address of the device. Ensure no other device responds to that address.
- Check that the cables and connectors or use another LAN cable.

12. Q: I don't know how to configure DHCP.

A: DHCP is commonly used in the large local network. It allows you to manage and distribute IP addresses throughout your local network via DN-11007-N. Without DHCP, you would have to configure each computer separately. It's very troublesome.

13. Q: What for does DN-11007-N assign DNS addresses?

A: Multiple DNS addresses are useful to provide an alternative when one of the servers is down or is encountering heavy traffic. ISP typically provides primary and secondary DNS addresses, and may provide an additional address. Your LAN PCs

learn these DNS addresses in one of the following ways.

Statically:

If your ISP provides you DNS server addresses, you can assign them to each PC by modifying the PCs IP properties.

Dynamically from DHCP pool:

You can configure the DHCP Server of DN-11007-N and create an address pool with the specified DNS addresses distributed to the PCs.

In either case, you can specify the actual addresses of the ISPs DNS servers (on the PC or in the DHCP pool), or you can specify the IP address of the LAN port on DN-11007-N (e.g., 192.168.1.1). When you specify the LAN port IP address, the device performs DNS relay.

14. Q: Why does the throughput seem slow?

A: To achieve maximum throughput, verify that your cable doesn't exceed 100 meter. If you have to do so, we advise you to purchase a bridge to place it in the middle of the rout in order to keep the quality of transmitting signal. Out of this condition you would better test something else.

- Verify network traffic does not exceed 37% of bandwidth.
- Check to see that the network does not exceed 10 broadcast messages per second.
- Verify network topology and configuration.

15. Q: How do I upgrade the firmware of DN-11007-N?

A: Periodically, a new Flash Code is available for DN-11007-N on your product provider website. Ideally, you should update DN-11007-N Router's Flash Code using "Firmware Upgrade" on the "System Setup" menu of DN-11007-N Settings.

16. Q: Printer is beginning printing, but it prints slowly and with unidentified words or codes. How could it happen?

A: Your printer's driver is lost or incompatible with your router. Please setup the printer's driver again. If you don't have the appropriate driver or want to get a compatible one, please contact with your printer supplier.

Chapter 6: Glossary

Broadband: A type of data transmission in which a single medium (such as cable) carries several channels of data at once.

Cable Modem (CM): The term "Cable Modem" is quite new and refers to a modem that operates over the ordinary cable TV network cables. Basically you just connect the Cable Modem to the TV outlet for your cable TV, and the cable TV operator connects a Cable Modem Termination System (CMTS) in his end (the Head-End).

CATV: Community Antenna Television or Cable TV system. It can be coaxial or HFC (Hybrid Fiber Coax) based.

CMTS: Cable Modem Termination System. It means central device for connecting the cable TV network to a data network like the Internet. Normally it placed in the head-end of the cable TV system.

DDNS: DDNS is a service let the dynamic IP switch to the static. The settings of DDNS can solve the problem of giving the different IP at a time. After setting the router, the hostname will match the dynamic IP.

Default Gateway (Router): Every non-router IP device needs to configure a default gateway's IP address. When the device sends out an IP packet, if the destination is not on the same network, the device has to send the packet to its default gateway, which will then send it out towards the destination.

Device name: Also known as DHCP client ID or network name. Sometimes it's provided by an ISP when it uses DHCP to assign addresses.

DHCP (Dynamic Host Configuration Protocol): Dynamic Host Configuration Protocol. This protocol provides a mechanism for allocating IP addresses dynamically so that addresses can be reused. Often used for managing the IP addresses of all the cable modems in a cable plant and the PC's connected to the cable modems.

DHCP Server (Dynamic Host Configuration Protocol Server): A DHCP server is a computer that is responsible for assigning IP addresses to the computers on a LAN.

DNS Server Address (Domain Name System): DNS stands for Domain Name System, which allows Internet servers to have a domain name (such as www.Broadbandrouter.com) and one or more IP addresses (such as 192.34.45.8). A DNS server keeps a database of Internet servers and their respective domain "Broadbandrouter.com" into your Internet browser), the user is sent to the proper IP address. The DNS server IP address used by

the computers on your home network is the location of the DNS server your ISP has assigned to you.

Firewall: A firewall determines which information passes in and out of a network. NAT can create a natural firewall by hiding a local network's IP addresses from the Internet. A Firewall prevents anyone outside of your network from accessing your computer and possibly damaging or viewing your files.

FTP (File Transfer Protocol): A program used to transfer files between computers connected to the Internet. Common uses include uploading new or updated files to a web server, and downloading files from web server.

Gateway: A network point that manages all the data traffic of your network, as well as to the Internet and connects one network to another.

Head-end: Central distribution point for a CATV system. Video signals are received here from satellites and maybe other sources, frequency converted to the appropriate channels, combined with locally originated signals, and rebroadcast onto the HFC plant. The head-end is where the CMTS is normally located.

HFC: Hybrid fiber-coaxial (cable network). Older CATV systems were provisioned using only coaxial cable. Modern systems use fiber transport from the head-end to an optical node located in the neighborhood to reduce system noise. Coaxial cable runs from the node to the subscriber. The fiber plant is generally a star configuration with all optical node fibers terminating at a head-end. The coaxial cable part of the system is generally a trunk-and-branch configuration.

IEEE: The Institute of Electrical and Electronics Engineers. The IEEE sets standards for networking, including Ethernet LANs. IEEE standards ensure interoperability between systems of the same type.

IP Address and Network (Subnet) Mask: IP stands for Internet Protocol. An IP address consists of a series of four numbers separated by periods, that identifies a single, unique Internet computer host in an IP network. Example: 192.168.2.1. It consists of 2 portions: the IP network address, and the host identifier.

The IP address is a 32-bit binary pattern, which can be represented as four cascaded decimal numbers separated by ".": aaa.aaa.aaa.aaa, where each "aaa" can be anything from 000 to 255, or as four cascaded binary numbers separated by "bbbbbbbb.bbbbbbbb.bbbbbbbb.bbbbbbbb, where each "b" can either be 0 or1.

A network mask is also a 32-bit binary pattern, and consists of consecutive leading 1's followed by consecutive trailing 0's, such as 11111111.11111111.11111111.00000000. Therefore sometimes a network mask can also be described simply as "x" number of leading 1's.

When both are represented side by side in their binary forms, all bits in the IP address that correspond to 1's in the network mask become part of the IP network address, and the remaining bits correspond to the host ID.

For instance, if the IP address for a device is, in its binary form, 11011001.10110000.10010000.00000111, and if its network mask is, 11111111.11111111.11110000.00000000. It means the device's network address is 11011001.10110000.10010000.00000000, and its host ID is, 00000000.00000000.00000000.00000111. This is a convenient and efficient method for routers to route IP packets to their destination.

ISP (Internet Service Provider): An ISP is a business that allows individuals or businesses to connect to the Internet. Users log on to the Internet using an account with an ISP or Internet Service Provider. ISPs can server IP addresses dynamically, or assign static (fixed) IP addresses to individual computers.

ISP Gateway Address: The ISP Gateway Address is an IP address for the Internet router. This address is only required when using a cable or DSL modem.

LAN (Local Area Network): A LAN is a group of computers and devices connected together in a relatively small area (such as a house or an office). Your home network is considered a LAN.

MAC Address (Media Access Control): A MAC address is the hardware address of a device connected to a network.

NAT (Network Address Translation): NAT masks a local network's group of IP addresses from the external network, allowing a local network of computers to share a single ISP account. This process allows all of the computers on your home network to use one IP address. This will enable access to the Internet from any computer on your home network without having to purchase more IP addresses from your ISP.

PPP (Point-to-Point Protocol): PPP is a protocol for communication between computers using a serial interface, typically a personal computer connected by phone line to a server.

PPPoE (Point-to-Point protocol over Ethernet): Point-to-Point protocol is a method of secure data transmission. PPP is using Ethernet to connect to an ISP.

Subnet Mask：A Subnet mask is a set of four numbers configured like an IP address. It is used to create IP address numbers used only within a particular network.

Ping (Packet Internet or Inter-network) group: A program used to verify whether the host associated with an IP address is online. It can also be used to reveal the IP address for a given domain name.

Port: A physical access point to a device such as a computer or router, through which data flows into and out of the device.

Protocol: A set of rules governing the transmission of data. In order for a data transmission to work, both ends of the connection have to follow the rules of the protocol.

RIP (Routing Information Protocol): The original TCP/IP routing protocol. There are two versions of RIP：Version I and version II.

TCP/IP (Transmission Control Protocol / Internet Protocol): This is the standard protocol for data transmission over the Internet. Protocol used to connect hosts on the Internet.

WAN (Wide Area Network): A system of LANs, connected together. A network connects computers located in separate areas (i.e., different buildings, cities, countries). The Internet is an example of wide area network.